



CONTRACT NO: HK/2011/07

**WANCHAI DEVELOPMENT PHASE II AND CENTRAL
WANCHAI BYPASS
SAMPLING, FIELD MEASUREMENT AND TESTING WORKS
(STAGE 2)**

**ENVIRONMENTAL PERMIT NO. EP-356/2009,
FURTHER ENVIRONMENTAL PERMIT NOS. FEP-02/356/2009,
FEP-03/356/2009, FEP-04/356/2009 , FEP-06/356/2009 AND
FEP-07/356/2009**

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

- DECEMBER 2015 -

CLIENTS:

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Department**

and

Highways Department

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13 January 2016

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14 January 2016

AECOM Asia Company Limited
Engineer's Representative's Office
25 Hung Hing Road,
Causeway Bay,
Hong Kong

By Post and Fax (3912 3010)

Attention: Mr. Peter Poon

Dear Mr. Poon,

**Re: Contract No. HK/2011/07
Wan Chai Development Phase II - Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 2)**

**Monthly Environmental Monitoring and Audit Report (December 2015)
for EP-356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-
04/356/2009, FEP-06/356/2009 and FEP-07/356/2009**

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for December 2015 received by e-mail on 13 January 2016 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permits.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,



David Yeung
Independent Environmental Checker

Encl.

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C.C.

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EXECUTIVE SUMMARY

This is the Environmental Monitoring and Audit (EM&A) Monthly Report – [December 2015](#) for the Project of Wan Chai Development Phase II and Central-Wanchai Bypass under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009. This report presents the environmental monitoring findings and information recorded during the period from [27th November 2015 to 26th December 2015](#).

Construction Activities for the Reported Period

- ii. During this reporting period, the major work activities for Contract no. HK/2009/01 included:
 - [Nil](#)
- iii. During this reporting period, the major work activities for Contract no. HK/2009/02 included:
 - [Reclamation works was completed](#)
- iv. During this reporting period, the major work activities for Contract no. HY/2009/15 included:
 - [Reinstatement of vertical seawall at TPCWAE](#)
- v. During this reporting period, the major work activities for Contract no. HY/2009/19 included:
 - [Nil](#)
- vi. During this reporting period, the major work activities for Contract no. HK/2012/08 included:
 - [Construction of culvert](#)
 - [Construction of dry dock](#)
 - [Trimming of rock bedding](#)
- vii. During this reporting period, the major work activities for Contract no. HY/2010/08.
 - [Diversion pipe maintenance](#)

Noise Monitoring

- viii. [Four limit level exceedances were recorded at noise monitoring station M1a – Harbour Road Sports Center on 01, 08, 15 and 23 December 2015. The exceedances were concluded as non-project related.](#)
- ix. [Two limit level exceedances were recorded at noise monitoring station M6 – HK Baptist Church Henrietta Secondary School on 11 and 16 December 2015. The exceedances were concluded as non-project related.](#)
- x. Noise monitoring during daytime and restricted hour were conducted at the stations M1a, M2b, M3a, M4b, M5b and M6 on a weekly basis in the reporting month.

Real-time Noise Monitoring

- xi. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.
- xii. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.
- xiii. 24-hour real time noise monitoring was conducted at RTN2a – Hong Kong Electric Centre. No project related limit level exceedance was recorded in the reporting month.

Air Quality Monitoring

- xiv. Due to interruption of electricity, the 24hr TSP was rescheduled as follows:
24hr TSP at CMA5b was rescheduled from 2 December 2015 to 3 December 2015.
- xv. No action or limit level exceedance for TSP monitoring was recorded in the reporting month.
- xvi. With respect to the removal of Oil Street Site Office, the respective air quality monitoring station CMA1b was finely adjusted on 11 September 2015.
- xvii. With respect to the area handover, the air quality monitoring station CMA5a at Children Playgrounds opposite to the Pedestrian Plaza was relocated to the Pedestrian Plaza on 3 December 2014. The station reference and location ID of the air quality monitoring station CMA5a was updated as CMA5b and Pedestrian Plaza respectively
- xviii. Due to extension of site boundary by contractor of HY/2009/19, location of air monitoring station CMA1b – Oil Street Community Liaison Centre has been finely adjusted on 21 April 2012.
- xix. The location ID of air monitoring station CMA1b was updated as Oil Street Site Office in April 2013.
- xx. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA1b – Oil Street Site Office; CMA2a – Causeway Bay Community Center; CMA3a – CWB PRE Site Office Area; CMA4a – Society for the Prevention of Cruelty to Animals; CMA5b – Pedestrian Plaza; CMA6a – WDII PRE Site Office.

Water Quality Monitoring

- xxi. Action and Limit level of water quality monitoring was transited from wet season to dry season from 1 October 2015.
- xxii. With respect to the completion of dredging activities at HKCEC and WCR, the removal of silt screen at monitoring stations C1, P1, P3, P4, P5 was conducted on 7 November 2015, for the water quality monitoring at C1, P1, P3, P4, P5 have been monitored for 4-week period after the removal of silt screen to confirm no water deterioration.
- xxiii. With respect to the completion of dredging activities at HKCEC and WCR, the removal of silt screen at monitoring stations WSD19 was conducted on 15 September 2015, for the water

quality monitoring at WSD19 have been monitored for 4-week period after the removal of silt screen to confirm no water deterioration.

- xxiv. With respect to the completion of the removal of the silt screen maintained under WDII Contract HK/2009/01 at WSD Saltwater Intake Station WSD19 on 15 September 2015, the monitoring location for the WQM station WSD19 would be finely adjusted to the location immediately outside the abstraction point of the respective WSD Saltwater Intake from 16 September 2015.
- xxv. With respect to the resumption of seawall reinstatement works at Ex-PCWAE and the location of the Enhance DO monitoring station Ex-PCWAE SE would form an active construction area. The Enhance DO monitoring station Ex-PCWAE SE was temporarily suspended from 31 August 2015.
- xxvi. With respect to the construction stage and access condition at Ex-PCWAW and the potential DO concern within the area, the suspended Enhance DO monitoring within Ex-PCWAW area at the Enhance DO monitoring station Ex-PCWA-SE was resumed on 10 August 2015 at the finely adjusted monitoring location.
- xxvii. With respect to the construction works undertaken at Ex-PCWAW and the forthcoming wet season DO concern, the suspended Enhance DO monitoring within Ex-PCWAW area at the Enhance DO monitoring station Ex-PCWA-SW was resumed on 30 March 2015 at the finely adjusted monitoring location.
- xxviii. With respect to the commencement of seawall modification works at Ex-PCWAE and the location of the Enhance DO monitoring stations would form an active construction area, the Enhance DO monitoring at monitoring station EX-PCWA SW and SE were temporarily suspended from 2 March 2015 ebb tide and the monitoring at the location is tentatively to be resumed by early April 2015 to cater for the potential DO concern during Wet Season.
- xxix. As informed by CWB RSS, the operation of the diverted Windsor House cooling intake was commenced on 20 Dec 2014 and the water quality monitoring at monitoring station C7 for Windsor House Cooling water intake was resumed on 22 Dec 2014.
- xxx. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.
- xxxi. With respect to the commencement of marine dredging works at WCR3 under contract HK/2009/02. The respective water quality monitoring station C1 were associated with HK/2009/01 and HK/2009/02.
- xxxii. As confirmed by CWB RSS, the operation of the pump station for Windsor House Cooling Water was suspended from 22 Oct 2014 for the Windsor House intake cooling intake scheme and temporary supply of freshwater from WSD water mains was provided to cooling water intake. The water quality monitoring for the respective cooling water intake at WQM station C7 was temporarily suspended from 22 Oct 2014.
- xxxiii. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- xxxiv. As confirmed by WDII RSS and IEC, the cross harbor dredging works have completed since 16 March 2012 while the dredging works for submarine outfall pipeline has completed since 29 November 2011, considering current construction stage and dredging Scenario, the water

- quality monitoring at stations WSD9 and WSD17 was temporarily suspended since 8 September 2014 flood tide.
- xxxv. With respect to the switching over of cooling water intake location, the water quality monitoring at the relocated intake station RW21-P789 under HK/2009/02 was commenced since 29 July 2013 and monitoring station C5e and C5w were temporarily suspended and switched over to monitoring station RW21-P789 on 29 July 2013 due to suspension of pump house operation.
 - xxxvi. As advised by WDII RSS, the water quality monitoring for WSD21 pump station with respect to HK/2009/02 was switched over to the relocated location since 12 March 2014. According to the EM&A Manual, the water quality monitoring station WSD21 was relocated to station RW21-P789 and the water quality monitoring at station WSD21 was temporarily suspended since 12 March 2014.
 - xxxvii. With respect to the commencement of marine dredging works under contract HY/2010/08. The respective water quality monitoring station C7 were associated with HY/2009/15 and HY/2010/08.
 - xxxviii. With respect to the commencement of marine dredging works under contract HK/2012/08/ The respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08 Since September 2013.
 - xxxix. WQM events on 22 April 2013 at monitoring stations C2, C3, C4e and C4w were temporarily suspended. Upon confirmation with WDII RSS and the IEC, water quality monitoring at relocated intakes monitoring location P1, P3, P4 and P5 were commenced since 24 April 2013.
 - xl. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.
 - xli. As confirmed by CWB RSS, the marine pilling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.
 - xl.ii. RSS confirmed that all Type III Dredging works under HK/2009/01 have been completed since Oct 2012.
 - xl.iii. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.
 - xl. iv. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3, 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.
 - xl. v. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.
 - xl. vi. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no

- longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others remain unchanged.
- xlvi. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration. Water quality monitoring at WSD10 and WSD15 was temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;
- xlvi. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and it was completed on 6 February 2012.
- xli. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Centre (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.
- I. Water quality monitoring at C8 and C9 have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 12.

Table I Summary of Water Quality Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	1	0	0
HK/2012/08	WSD19	0	0	5	1	0	0	0	0	0	3	0	0
	P1	0	0	0	0	0	0	0	0	0	0	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	0	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	1	0	1
HK/2009/02	RW21-P789	0	0	0	1	0	0	0	0	1	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	5	2	0	0	0	0	1	5	0	1

- Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.
- WSD9 and WSD17 were implemented with respect to HK/2009/02 from 8 Feb 2012.
- 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- C8 & C9 was temporary suspended on 30 March 2013 due to the marine works for Contract no. HY/2009/19 had been completed on 4 March 2013
- WSD7 and WSD20 water quality monitoring were temporarily suspended from 27 Apr 2012.

- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013
 - C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
 - WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
 - Maintenance responsibility of silt screen C1, P3, P4 and P5 are under Contract HK/2009/01.
 - WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
 - The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.
- li. There were 6 action level and 7 limit level of turbidity exceedances, and no action level and 1 limit level of suspended solid exceedances recorded in the reporting month.
- lii. Investigation found that the turbidity exceedances and suspended solid exceedances recorded in this reporting month were not related to Project works. The details of the recorded exceedance can be referred to the **Section 6.4**.
- liii. Enhanced DO monitoring at 4 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period. The action and limit level exceedances of water quality monitoring are summarized in **Table II**.

Table II Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood		Mid-ebb	
		DO		DO	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	Ex-WPCWA SW	1	0	0	0
Total		1	0	0	0

Remarks: - Enhance DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation.

- Enhance DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area.

- liv. There was 1 action level and no limit level exceedances of enhanced dissolved oxygen recorded in this reporting month. Investigation found that the exceedance was not related to Project works. The details of the recorded exceedances can be referred to the **Section 6.4**.
- lv. In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored.

- lvi. With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013.
- lvii. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- lviii. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.
- lix. With respect to the resumption of seawall reinstatement works at Ex-PCWAE and the location of the Enhance DO monitoring station Ex-PCWAE SE would form an active construction area. The Enhance DO monitoring station Ex-PCWAE SE was temporarily suspended from 31 August 2015.

Complaints, Notifications of Summons and Successful Prosecutions

- lx. There was no environmental complaint received in this reporting month.
- lxi. Referring to the complaint case regarding the illegal disposal of construction waste referred by EPD was received by ET on 17 November 2015, the updated 2nd and 3rd interim investigation report were submitted to the EPD on 17 December 2015 and 31 December 2015 respectively. In response to the complaint concern, additional water quality monitoring and additional site inspections have been conducted by the ET and the investigation findings were included in the interim investigation reports separately submitted to the EPD. In addition, the ET and IEC have conducted checking on the waste disposal records and site construction records with the CWB RSS team to confirm the key construction activities during the concerned period and the quantities of inert C&D material disposed. Upon further review on relevant records and follow up inspections on the implementation of site measures, the final investigation would be issued.

Site Inspections and Audit

- i. The Environmental Team (ET) conducted weekly site inspections for Contract nos. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08 under EP no. EP-356/2009 in the reporting month. Major observations and recommendations made during the audit sessions were rectified by the Contractors. No non-conformance was identified during the site inspections.
- ii. Construction works under HK/2010/06 was confirmed completed and the respective work area under FEP-05/356/2009 was handover and inspected under HK/2012/08 from 22 September 2014 onwards.

Future Key Issues

- iii. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- Nil

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East

- Nil

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- Reinstatement of vertical seawall at TPCWAE

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- Nil

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- Construction of culvert
- Construction of dry dock
- Trimming of rock bedding

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- Diversion pipe maintenance

1 Introduction

1.1 Scope of the Report

- 1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001).
- 1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.3 of EM&A Manual and “*Environmental Monitoring and Audit Requirements*” under Particular Specification Section 27.
- 1.1.3. This report documents the finding of EM&A works for Environmental Permit no. EP-356/2009, Further Environmental Permit no. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 during the period from [27th November 2015 to 26th December 2015](#). The cut-off date of reporting is at 27th of each reporting month.

1.2 Structure of the Report

- Section 1** ***Introduction*** – details the scope and structure of the report.
- Section 2** ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- Section 3** ***Status of Regulatory Compliance*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.
- Section 4** ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.
- Section 5** ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.
- Section 6** ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.
- Section 7** ***Cumulative Construction Impact due to the Concurrent Projects*** – summarizes the relevant cumulative construction impact due to the concurrent activities of the concurrent Projects.

- Section 8 Environmental Site Audit** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.
- Section 9 *Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution
- Section 10 *Conclusion***

2 Project Background

2.1 Background

- 2.1.1. “Wan Chai Development phase II and Central-Wan Chai Bypass” and “Central-Wan Chai Bypass and Island Eastern Corridor Link” (hereafter called “the Project”) are Designed Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001) and Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) have been approved on 31 August 2001 and 11 December 2008 respectively.
- 2.1.2. The key purpose of Wan Chai Development Phase II (WDII) is to provide land at Wan Chai North and North Point for construction of the Central-Wan Chai Bypass and Island Eastern Corridor Link (CWB). Land formed under the project will be developed as a world-class waterfront promenade joining that at the new Central waterfront for public enjoyment.
- 2.1.3. There is a compelling and present need for the CWB to provide relief to the very congested east-west Connaught Road Central/Harcourt Road / Gloucester Road Corridor (the Corridor) which is currently operating beyond its capacity. The CWB will provide relief to the existing congestion along the Corridor and cater for the anticipated growth of traffic on Hong Kong Island. Without the CWB and its access roads, there will not be sufficient capacity to serve the heavy traffic demands at both strategic and local levels.

2.2 Scope of the Project and Site Description

- 2.2.1. The Project is located mainly in Wan Chai North, Causeway Bay and North Point, and is demarcated by Gloucester Road and Victoria Park Road to the south, Fenwick Pier Street to the west and Tong Shui Road Interchange to the east, as shown in **Figure 2.1**.
- 2.2.2. The study area encompasses existing developments along the Wan Chai, Causeway Bay and North Point shorelines. Major land uses include the Hong Kong Convention & Exhibition Centre (HKCEC) Extension, the Wan Chai Ferry Pier, the ex-Wan Chai Public Cargo Working Area (ex-PCWA), the Royal Hong Kong Yacht Club (RHKYC), the Police Officers’ Club, the Causeway Bay Typhoon Shelter (CBTS) and commercial and residential developments.
- 2.2.3. The scope of the Project comprises:
- Land formation for key transport infrastructure and facilities, including the Trunk Road (i.e. CWB) and the associated slip roads for connection to the Trunk Road and for through traffic from Central to Wan Chai and Causeway Bay. The land formed for the above transport infrastructure will provide opportunities for the development of an attractive waterfront promenade for the enjoyment of the public
 - Reprovisioning / protection of the existing facilities and structures affected by the land formation works mentioned above
 - Extension, modification, reprovisioning or protection of existing storm water drainage outfalls, sewerage outfalls and watermain affected by the revised land use and land formation works mentioned above

- Upgrading of hinterland storm water drainage system and sewerage system, which would be rendered insufficient by the land formation works mentioned above
- Provision of the ground level roads, flyovers, footbridges, necessary transport facilities and the associated utility services
- Construction of the new waterfront promenade, landscape works and the associated utility services
- The Trunk Road (i.e. CWB) within the study area and the associated slip roads for connection to the Trunk Road.

2.2.4. The project also contains various Schedule 2 DPs that, under the EIAO, require Environmental Permits (Eps) to be granted by the DEP before they may be either constructed or operated. **Table 2.1** summarises the five individual DPs under this Project. [Figure 2.1](#) shows the locations of these Schedule 2 DPs.

Table 2.1 Schedule 2 Designated Projects under this Project

Item	Designated Project	EIAO Reference	Reason for inclusion
DP1	Central-Wanchai Bypass (CWB) including its road tunnel and slip roads	Schedule 2, Part I, A.1 and A.7	Trunk road and road tunnel more than 800 m in length
DP2	Road P2 and other roads which are classified as primary/district distributor roads	Schedule 2, Part I, A.1	Primary / district distributor roads
DP3	Reclamation works including associated dredging works	Schedule 2, Part I, C.1 and C.12	Reclamation more than 5 ha in size and a dredging operation less than 100 m from a seawater intake point
DP5	Wan Chai East Sewage Outfall	Schedule 2, Part I, F.5 and F.6	Submarine sewage pipelines with a total diameter more than 1,200 mm and include a submarine sewage outfall
DP6	Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui	Schedule 2, Part I, C.12	A dredging operation less than 100 m from a seawater intake point

2.3 Division of the Project Responsibility

2.3.1. Due to the multi-contract nature of the Project, there are a number of contracts sub-dividing the whole works area into different work areas to be commenced. Contractors of individual contracts will be required by the EP holder to apply Further Environmental Permits (FEP) such that the impact monitoring stations are sub-divided accordingly to facilitate the implementation of EM&A programme and to streamline the EM&A reporting for individual FEP holders correspondingly.

2.3.2. The details of individual contracts are summarized in **Table 2.2**.

Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong Kong Convention and Exhibition Centre	DP3, DP6	23 July 2010
		DP1, DP2	25 August 2011
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East	DP3, DP5	5 July 2010
		DP1	26 April 2011
HY/2009/11	Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation	DP3	17 March 2010 (Completed)
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP3	10 November 2010
		DP1	13 July 2011
HK/2010/06	Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011 (Completed)
04/HY/2006	Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street	DP1	September 2010 (Completed)
HY/2009/17	Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works.	DP1	5 October 2010 (Completed)
HY/2009/18	Central – Wan Chai Bypass (CWB) – Central Interchange	DP1	21 April 2011
HY/2009/19	Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link	DP1	24 March 2011
HK/2012/08	Wan Chai Development Phase II Central-Wan Chai Bypass at Wan Chai West	DP1,DP2, DP3	10 March 2014
HY/2010/08	Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)	DP1, DP2, DP3	21 March 2013
HY/2011/08	Central-Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning	DP1	8 October 2014

2.4 Project Organization and Contact Personnel

- 2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.
- 2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in **Figure 2.2**. Key personnel and contact particulars are summarized in **Table 2.3**:

Table 2.3 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax
AECOM	Engineer's Representative for WDII	Principal Resident Engineer	Mr. Frankie Fan	2587 1778	2587 1877
	Engineer's Representative for CWB	Principal Resident Engineer	Mr. Peter Poon	3912 3388	3912 3010
Chun Wo – Leader Joint Venture	Contractor under Contract no. HK/2009/01	Project Manager	Mr. Simon Liu	9304 8355	2587 1878
		Site Agent	Mr. Andy Yu	9648 4896	
		Construction Manager	Mr. Terry Wong	9757 9846	
		Construction Manager	Mr. Wyman Wong	9627 2467	
		Construction Manager	Mr. Terry Tsang	6683 9394	
		Environmental Officer	Ms. Wendy Ng	9803 0057	
		Assistant Environmental Engineer	Miss. Connie Chan	6157 7057	
Chun Wo – CRGL Joint Venture	Contractor under Contract no. HK/2009/02	Project Manager	Mr. Paul Yu	3658-3085	2827 9996
		Quality & Environmental Manager	Mr. C.P. Ho	9191 8856	
China State Construction Engineering (HK) Ltd.	Contractor under Contract no. HY/2009/15	Project Director	Chris Leung	3557 6393	2566 2192
		Site Manager	Y Huo	3557 6368	
		Contractor's Representative	Andrew Wong	3557 6371	
		Contractor's Representative	Gene Cheung	3557 6395	
		Environmental Officer	Andy Mak	3557 6347	
Chun Wo – CRGL – MBEC Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Rayland Lee	3758 6788	2570 8013
		Site Agent	David Lau	3758 8879	
		Deputy Site Agent	Eric Fong	6191 9337	
		Environmental Manager / Environmental Officer	M.H. Isa	9884 0810	
		Construction Manager (Marine)	Andy Chan	9879 4325	
		Construction Manager (Land)	Bear Ding	6483 6198	
		Operation Manager (Land)	Yung Kwok Wah	9834 1010	
China	Contractor	Project Director	C. N. Lai	9106 5806	2877 1522

Party	Role	Post	Name	Contact No.	Contact Fax
State-Leader JV	under Contract no. HK/2012/08	Project Manager	Eddie Chung	9189 8118	
		Site Agent	Keith Tse	9037 1839	
		Environmental Officer	James Ma	9130 9549	
		Environmental Supervisor	Y. L. Ho	9856 5669	
China State	Contractor under Contract no. HY/2010/08	Project Director	Chris Leung	3467 4299	2566 8061
		Project Manager	Chan Ying Lun	3418 3001	
		Site Agent	Dave Chan	3467 4277	
		Environmental Officer	Gabriel Wong	35576466	
		Environmental Supervisor	Desmond Ho Tsz Ho	3557 6466	
Leighton Joint Venture	Contractor under Contract no. HY/2011/08	Project Manager	Paul Evans	2823 1111	21406799
		Site Agent	Colman Wong	9730 0806	
		Environmental Officer	David Hung	9765 6161	
		Environmental Supervisor	Penny Yiu	2214 7738	
Ramboll Environ Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.4.3. For Contract no. HK/2009/01, the principal work activities in this reporting month included:

- Nil

2.4.4. For Contract no. HK/2009/02, the principal work activities in this reporting month included:

- Reclamation works was completed

2.4.5. For Contract no. HY/2009/15, the principal work activities in this reporting month included:

- Reinstatement of vertical seawall at TPCWAE

2.4.6. For Contract no. HY/2009/19, the principal work activity in this reporting month included:

- Nil

2.4.7. For Contract no. HK/2012/08, the principal work activity in this reporting month included:

- Construction of culvert
- Construction of dry dock
- Trimming of rock bedding

2.4.8. For Contract no. HY/2010/08, no principal work activities this reporting month.

- Diversion pipe maintenance

2.4.9. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- Nil

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East

- Nil

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- Reinstatement of vertical seawall at TPCWAE

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- Nil

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- Construction of culvert
- Construction of dry dock
- Trimming of rock bedding



Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- Diversion pipe maintenance

3 Status of Regulatory Compliance

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in **Table 3.1**.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-356/2009	30 Jul 2009	Valid
Environmental Permit	EP-364/2009	17 Aug 2009	Superseded
Environmental Permit	EP-364/2009/A	4 Aug 2010	Superseded
Environmental Permit	EP-364/2009/B	20 Sep 2012	Superseded
Environmental Permit	EP-364/2009/C	11 Jul 2014	Valid
Environmental Permit	EP-376/2009	13 Nov 2010	Valid
Further Environmental Permit	FEP-01/356/2009	18 Feb 2010	Surrendered
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	Valid
Further Environmental Permit	FEP-05/356/2009	24 Mar 2011	Surrendered
Further Environmental Permit	FEP-01/364/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-02/364/2009	21 Apr 2010	Valid
Further Environmental Permit	FEP-03/364/2009	12 Jul 2010	Surrendered
Further Environmental Permit	FEP-04/364/2009/A	14 Oct 2010	Surrendered
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Valid
Further Environmental Permit	FEP-06/364/2009/A	22 Nov 2010	Valid
Further Environmental Permit	FEP-07/364/2009/B	20 Sep 2012	Valid
Further Environmental Permit	FEP-08/364/2009/A	15 Jun 2012	Surrendered
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	Valid
Further Environmental Permit	FEP-07/356/2009	26 July 2013	Valid
Further Environmental Permit	FEP-09/364/2009/B	5 March 2013	Valid
Further Environmental Permit	FEP-10/364/2009/B	26 July 2013	Valid

Permits and/or Licences	Reference No.	Issued Date	Status
Further Environmental Permit	FEP-11/364/2009/B	2 May 2014	Valid

- 3.1.2. Due to the multi-contract nature of the Project, the status of permits and/or licences under the individual contract(s) are presented as below:

Contract no. HK/2010/06 – Wan Chai Development Phase II – Central – Wan Chai Bypass over MTR Tsuen Wan Line under FEP-05/356/2009

- 3.1.3. The construction works were completed and the FEP-05/356/2009 was surrendered by the Contractor on 3 October 2014.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 3.1.4. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/01 under FEP-02/356/2009 are shown in **Table 3.2** and **Table 3.3**.

Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	N/A	Valid
	FEP-02/364/2009	21 Apr 2010	N/A	Valid
Notification of Works Under APCO	313088	06 Jan 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0706-15	30 Jun 2015	2 Jul 2015 to 1 Jan 2016	Valid
	GW-RS0803-15	28 Jul 2015	21 Aug 2015 to 20 Feb 2016	Valid
	GW-RS0804-15	28 Jul 2015	22 Aug 2015 to 21 Feb 2016	Valid
	GW-RS0868-15	13 Aug 2015	14 Aug 2015 to 13 Feb 2016	Valid
	GW-RS1025-15	22 Sep 2015	24 Sep 2015 to 23 Mar 2016	Valid
	GW-RS1031-15	22 Sep 2015	29 Sep 2015 to 24 Mar 2016	Superseded by GW-PS1228-15
	GW-RS1134-15	23 Oct 2015	08 Nov 2015 to 07 May 2016	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1135-15	23 Oct 2015	26 Nov 2015 to 25 May 2016	Valid
	GW-RS1228-15	13 Nov 2015	16 Nov 2015 to 13 May 2016	Valid
	GW-RS1309-15	27 Nov 2015	30 Nov 2015 to 26 May 2016	Valid
Discharge Licence	WT00021138-2015	13 Apr 2015	31 Mar 2020	Valid
	WT00009641-2011	24 Jul 2011	31 Jul 2016	Valid
Billing account under Waste Disposal Ordinance	7010069	21 Jan 2010	N/A	Valid
Registration as a Chemical Waste Producer	WPN5213-134-C3585-01	21 Jan 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-094	08 Oct 2015	13 Oct 2015 to 12 Apr 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal)	-	-	-	-

Table 3.3 Summary of submission status under FEP-02/356/2009 Condition

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	13 Apr 2010
Condition 2.7	Works Schedule and Location Plan	8 Apr 2010
Condition 2.8	Silt Curtain Deployment Plan (Rev. 5)	24 Aug 2012
	Silt Curtain Deployment Plan (Rev. 4)	12 July 2012
	Silt Curtain Deployment Plan (Rev. 3)	27 June 2012
	Silt Curtain Deployment Plan	19 Apr 2010
Condition 2.9	Silt Screen Deployment Plan (Rev. 9)	5 Nov 2015

EP Condition	Submission	Date of Submission
	Silt Screen Deployment Plan (Rev. 8)	7 Sep 2015
	Silt Screen Deployment Plan (Rev. 7)	21 Nov 2014
	Silt Screen Deployment Plan (Rev. 6)	20 Aug 2014
	Silt Screen Deployment Plan (Rev.5)	24 Jul 2013
	Silt Screen Deployment Plan (Rev.4)	15 Nov 2012
	Silt Screen Deployment Plan	19 Apr 2010
Conditions 2.8 and 2.9	Supplementary Document on Silt Curtain and Silt Screen Deployment Plan	19 Jul 2010
	Report on Field Testing for Silt Curtain	26 Aug 2010
	Report on Field Testing for Silt Curtain (Rev. A)	15 Nov 2010
Condition 2.12(d)	Alternative Proposal on Concurrent Dredging for Sewage Pipeline and Cross Harbour Water Mains	15 Apr 2011
Condition 2.17	Noise Management Plan	23 Apr 2010
Condition 2.18	Landscape Plan (Erection of Decorative Screen Hoarding along Construction Site around Hong Kong Exhibition and Convention Centre)	15 May 2010
	Landscape Plan (Night-time Lighting)	22 Oct 2010
	Landscape Plan (Rev. B)	15 Nov 2010
Condition 1.12	Notification of Commencement Date	20 Jun 2011
Condition 2.6 to 2.8	Management Organization, Works Schedule and Location Plan	18 May 2011
Condition 2.9	Silt Screen Deployment Plan	10 Jun 2011
Condition 2.18	Landscape Plan	31 Oct 2013

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- 3.1.5. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/02 under FEP-03/356/2009 are shown in **Table 3.4** and **Table 3.5**.

Table 3.4 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	N/A	Valid
	FEP-01/364/2009	24 Mar 2010	N/A	Valid
Notification of Works Under APCO	313962	2 Feb 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0610-15	10 Jun 2015	22 Jun 2015 to 21 Dec 2015	Expired
	GW-RS0637-15	11 Jun 2015	18 Jun 2015 to 8 Dec 2015	Expired
	GW-RS0709-15	30 June 2015	2 Jul 2015 to 1 Jan 2016	Valid
	GW-RS0716-15	30 June 2015	4 Jul 2015 to 27 Dec 2015	Expired
	GW-RS1004-15	15 Sep 2015	17 Sep 2015 to 16 Dec 2015	Expired
	GW-RS1006-15	15 Sep 2015	18 Sep 2015 to 14 Mar 2016	Valid
	GW-RS1099-15	8 Oct 2015	8 Oct 2015 to 30 Nov 2015	Expired
	GW-RS1150-15	26/10/2015	28 Oct 2015 to 27 Apr 2016	Valid
	GW-RS1187-15	28/10/2015	30 Oct 2015 to 27 Apr 2016	Valid
Discharge Licence	WT00008982-2011	26 Apr 2011	30 April 2016	Valid
	WT00009691-2011	1 Aug 2011	31 July 2016	Valid
	WT00022295-2015	12 Aug 2015	31 July 2020	Valid
Billing Account under Waste Disposal Ordinance (Land)	7010255	10 Feb 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance (Marine)	7011496	6 Oct 2010	N/A	Valid
Registration as Chemical Waste Producer (Wan Chai)	WPN5213-135-C3 593-01	10 Mar 2010	N/A	Valid
Registration as Chemical Waste Producer (TKO 137)	WPN5213-839-C3 593-02	22 Sep 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-034	26 Jun 2015	1 Jul 2015 to 31 Dec 2015	Valid

Table 3.5 Summary of submission status under FEP-03/356/2009 Condition

EP Condition	Submission	Date of Submission
Condition 1.12	Commencement Date of Construction of Marine Works	8 April 2010

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	10 April 2010
Condition 2.7	Works Schedule and Location Plans	8 April 2010
Condition 2.8	Silt Curtain Deployment Plan (Revision A)	20 April 2010
	Silt Curtain Deployment Plan (Revision B)	25 May 2010
	Silt Curtain Deployment Plan (Revision C)	14 Jun 2010
	Silt Curtain Deployment Plan (Revision H)	15 Feb 2011
	Silt Curtain Deployment Plan (Revision I)	17 Nov 2011
	Silt Curtain Deployment Plan (Revision J)	15 Feb 2012
	Silt Curtain Deployment Plan (Revision K)	3 May 2012
	Silt Curtain Deployment Plan (Revision L)	25 Oct 2012
	Silt Curtain Deployment Plan (Revision M)	30 Nov 2012
Condition 2.9	Silt Screen Deployment Plan	21 April 2010
	Supplementary Information for Existing WSD Salt Water Intakes at Quarry Bay and Sai Wan Ho	5 Oct 2010
	Silt Screen Deployment Plan (Revision B)	15 Feb 2012
	Silt Screen Deployment Plan (Revision C)	3 May 2012
	Silt Screen Deployment Plan (Revision D)	10 Dec 2012
Condition 2.17	Noise Management Plan	6 May 2010
Condition 2.18	Landscape Plan (Decorative Screen Hoarding)	11 May 2010
	Landscape Plan (Control of Night Time Lighting)	2 June 2010
	Landscape Plan (Combined Version)	20 July 2011
	Landscape Plan (Combined Version)	5 Aug 2011
-----	Acknowledge of Submission	22 Aug 2011

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 3.1.6. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2009/15 under FEP-04/356/2009 are shown in **Table 3.6** and **Table 3.7**.

Table 3.6 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	N/A	Valid
Notification of Works Under APCO	321822	24 Sep 2010	N/A	Valid
Construction Noise Permit (CNP) for concreting works at Eastern Breakwater of CBTS	GW-RS0893-15	17 Aug 2015	17 Aug 2015 to 16 Feb 2016	Valid
Construction Noise Permit (CNP) for reclamation and d-wall works at Ex-PCWA	GW-RS1160-15	26 Oct 2015	28 Oct 2015 to 25 Apr 2016	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C116 9-35	15 Nov 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance	7011553	30 Sep 2010	27 Sep 2010 to 27 Jan 2016	Valid
Billing Account under Waste Disposal Ordinance (Disposal by Vessel)	7011761	5 Oct 2015	17 Oct 2015 to 16 Jan 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-051	3 Aug 2015	5 Aug 2015 to 30 Jan 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal(Dedicated Site) and Type 2 – Confined Marine Disposal)	EP/MD/16-128	18 Nov 2015	22 Nov 2015 to 21 Dec 2015	Expired

Table 3.7 Summary of submission status under FEP-04/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	30 Sep 2010
	Amendment for Management Organization of Main Construction Companies	16 May 2011
Condition 2.7	Works Schedule and Location Plans	27 Oct 2010
	Amendment for Works Schedule and Location Plans	12 Nov 2010
Condition 2.8	Silt Curtain Deployment Plan	30 Nov 2010

FEP Condition	Submission	Date of Submission
	Amendment for Silt Curtain Deployment Plan	24 Feb 2011
	Amendment for Silt Curtain Deployment Plan	11 May 2011
	Amendment for Silt Curtain Deployment Plan	11 Sep 2012
	Amendment for Silt Curtain Deployment Plan	30 Oct 2012
Condition 2.9	Silt Screen Deployment Plan	19 Oct 2010
	Amendment for Silt Screen Deployment Plan	18 Feb 2011
	Amendment for Silt Screen Deployment Plan	15 Jun 2011
Condition 2.18	Proposal for the Removal of Odorous Sediment and Slime	13 Jan 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	8 Mar 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	2 Aug 2011
Condition 2.21	Landscape Plan	18 Feb 2011
Condition 2.23	Noise Management Plan	20 Oct 2010
	Amendment for Noise Management Plan	27 Jan 2011

- 3.1.7. Implementation status of the recommended mitigation measures during this reporting period is presented in **Appendix 3.1**.

Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 3.1.8. Summary of the current status on licences and/or permits on environmental protection pertinent for contract no. HY/2009/19 is shown in **Table 3.8**

Table 3.8 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/19

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period / Expiry date	Status
Further Environmental Permit	FEP-07/364/2009/A	20 Sep 2012	Granted	Valid
Notification of Works Under APCO	326160	24 Jan 2011	Notified	Valid
Construction Noise Permit (CNP) (For Portion Vi Marine)	GW-RS0909-15	21 Aug 2015	21 Aug 2015 to 20 Feb 2016	Valid
Discharge License (Sea)	WT00010865-2011	03 Nov 2011	30-Nov-16	Valid
C&D Waste Disposal	7012306	10 Feb 2011	Registered	-
Vessel Disposal	7013285	21 July 2011	Registered	-
Registration as Chemical Waste Producer	5213-151-C3654-01	24 Mar 2011	Registered	-

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- 3.1.9. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2012/08 under FEP-06/356/2009 are shown in **Table 3.9** and **Table 3.10**.

Table 3.9 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	8 Mar 2013	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	18 Jul 2017	Valid
Water Discharge Licence	WT00018223-2014	28 Jan 2014	31 Jan 2019	Superseded by WT0002059 4-2014
	WT00020594-2014	22 Dec 2014	31 Jan 2019	Valid
Construction Noise Permit	GW-RS0838-15	31 Jul 2015	3 Aug 2015 to 2 Feb 2016	Valid
	GW-RS0835-15	3 Aug 2015	5 Aug 2015 to 2 Feb 2016	Valid
	GW-RS1012-15	22 Sep 2015	27 Sep 2015 to 26 Mar 2016	Valid
	GW-RS0976-15	7 Sep 2015	23 Sep 2015 to 22 Mar 2016	Valid
	PP-RS0024-15	17 Sep 2015	22 Sep 2015 to 21 Mar 2016	Valid
	GW-RS0921-15	26 Aug 2015	9 Sep 2015 to 8 Mar 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-037	30 Jun 2015	2 Jul 2015 to 1 Jan 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	EP/MD/16-111	27 Oct 2015	2 Nov 2015 to 1 Dec 2015	Expired
	EP/MD/16-135	27 Nov 2015	2 Dec 2015 to 1 Jan 2016	Valid

Table 3.10 Summary of submission status under EP-356/2009 and FEP-06/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (Rev. 3)	Submitted on 25 Nov 2013 was returned to CSLJV by EPD.
Condition 2.9	Silt Screen Deployment Plan (Rev. 2)	Generally in order as commented by EPD on 19 Sep 2013
Condition 2.23	Noise Management Plan (Rev. 2)	Generally in order as commented by EPD on 15 Aug 2013
Condition 2.24	Landscape Plan (Rev. 3)	Generally in order as commented by EPD on 31 Oct 2013

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- 3.1.10. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2010/08 under FEP-07/356/2009 are shown in Table 3.11 and Table 3.12.

Table 3.11 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-07/356/2009	26 Jul 2013	NA	Valid
	FEP-10/364/2009/B	26 Jul 2013	NA	Valid
Notification of Works Under APCO	357176	2 Apr 2013	NIL	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C11 69-44	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance	7017170	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance (Dumping by Vessel)	7020947	22 Dec 2014	NIL	Valid.
Water Discharge Licence	WT00020753-2015	3 Feb 2015	28 Feb 2017	Valid
Construction Noise Permit	GW-RS1039-15	23 Sep 2015	23 Sep 2015 to 21 Mar 2016	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1137-15	22 Oct 2015	22 Oct 2015 to 20 Apr 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-057	10 Aug 2015	12 Aug 2015 to 11 Feb 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	NIL	NIL	NIL	NIL

Table 3.12 Summary of submission status under EP-356/2009 and FEP-07/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (rev03)	24 Dec 2014
Condition 2.9	Silt Screen Deployment Plan (rev02)	18 Feb 2015
Condition 2.23	Noise Management Plan (rev02)	25 Mar 2014
Condition 2.24	Landscape Plant (rev04)	23 Sep 2014

Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

- 4.1.1. The noise monitoring stations for the Project are listed and shown in **Table 4.1** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Station

Station	Description
M1a	Harbour Road Sports Centre
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

REAL-TIME NOISE MONITORING STATIONS

- 4.1.2. The real-time noise monitoring stations for the Project are listed and shown in **Table 4.2** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.
- 4.1.3. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.
- 4.1.4. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

Table 4.2 Real Time Noise Monitoring Station

District	Station	Description
North Point	RTN2a	Electric Centre

- Real time noise monitoring results and graphical presentation during night time period are for information only.
- RTN2 had been relocated to RTN2a since 5 Oct 2012

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.5. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{eq} (30 minutes) shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, L_{eq} (5 minutes) shall be employed for comparison with the Noise Control Ordinance (NCO)

criteria. Supplementary information for data auditing, statistical results such as L10 and L90 shall also be obtained for reference.

- 4.1.6. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:

- One set of measurements between 0700 and 1900 hours on normal weekdays.

- 4.1.7. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

MONITORING EQUIPMENT

- 4.1.8. As referred to in the Technical Memorandum TM issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.
- 4.1.9. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

- 4.2.1. The air monitoring stations for the Project are listed and shown in **Table 4.3** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.3 Air Monitoring Station

Station ID	Monitoring Location	Description
CMA1b	Oil Street Site Office**	North Point
CMA2a	Causeway Bay Community Centre	Causeway Bay
CMA3a	CWB PRE Site Office *	Causeway Bay
CMA4a	Society for the Prevention of Cruelty to Animals	Wan Chai
CMA5b	Pedestrian Plaza***	Wan Chai
CMA6a	WDII PRE Site Office *	Wan Chai

Remarks*: As per the ENPC meeting in March 2011, the monitoring stations CMA3a – Future CWB site office at Wanchai Waterfront Promenade was renamed as remark.

Remarks**: The location ID of monitoring station CMA1b was updated as “Oil Street Site Office” in April 2013.

Remarks***: The station ID and monitoring location was updated in December 2014 with respect to monitoring station relocation.

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six-days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

- 4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:
- 0.6 – 1.7 m³ per minute adjustable flow range;
 - equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
 - installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
 - capable of providing a minimum exposed area of 406 cm²;
 - flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
 - equipped with a shelter to protect the filter and sampler;
 - incorporated with an electronic mass flow rate controller or other equivalent devices;
 - equipped with a flow recorder for continuous monitoring;
 - provided with a peaked roof inlet;
 - incorporated with a manometer;
 - able to hold and seal the filter paper to the sampler housing at horizontal position;
 - easily changeable filter; and
 - capable of operating continuously for a 24-hour period.
- 4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

LABORATORY MEASUREMENT / ANALYSIS

- 4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.
- 4.2.8. An alternative non-HOKLAS accredited laboratory was set-up for carrying out the laboratory analysis, the laboratory equipment was approved by the ER on 8 February 2011 and the measurement procedures were witnessed by the IEC. Any measurement performed by the laboratory was demonstrated to the satisfaction of the ER and IEC. IEC shall regularly audit the measurement performed by the laboratory to ensure the accuracy of measurement results.
- 4.2.9. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24-hours and be pre-weighed before use for the sampling.
- 4.2.10. After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.
- 4.2.11. All the collected samples shall be kept in a good condition for 6 months before disposal.

IMPACT MONITORING FOR ODOUR PATROL

- 4.2.12. Odour patrols along the shorelines of Causeway Bay Typhoon Shelter and ex-Wan Chai Public Cargo Working Area when there is temporary reclamation in Causeway Bay Typhoon Shelter and/or in the ex-Wan Chai Public Cargo Working Area, or when there is dredging of the odorous sediment and slime at the south-western corner of the Causeway Bay Typhoon Shelter. Odour patrols will be carried out at bi-weekly intervals during July, August and September by a qualified person of the ET who shall:
- be at least 16 years of age;
 - be free from any respiratory illnesses; and
 - not be allowed to smoke, eat, drink (except water) or use chewing gum or sweets 30 min before and during odour patrol
- 4.2.13. Odour patrol shall be conducted by independent trained personnel / competent persons patrolling and sniffing around the shore as shown in **Figure 4.1** to detect any odour at the concerned hours (afternoon is preferred for higher daily temperature).
- 4.2.14. The qualified person will use the nose (olfactory sensor) to sniff odours at different locations. The main odour emission sources and the areas to be affected by the odour nuisance will be identified.
- 4.2.15. The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:

- 0 – Not detected. No odour perceived or an odour so weak that it cannot be easily characterized or described;
- 1 – Slight Identifiable odour, and slight chance to have odour nuisance;
- 2 – Moderate Identifiable odour, and moderate chance to have odour nuisance;
- 3 – Strong Identifiable, likely to have odour nuisance;
- 4 – Extreme Severe odour, and unacceptable odour level.

4.2.16. The findings including odour intensity, odour nature and possible odour sources, and also the local wind speed and direction at each location will be recorded. In addition, some relevant meteorological and tidal data such as daily average temperature, and daily average humidity, on that surveyed day will be obtained from the Hong Kong Observatory Station for reference. The Action and Limit levels for odour patrol are shown in **Appendix 4.1**.

4.2.17. The qualified odour patrol member has individual n-butanol thresholds complied with the requirement of European Standard Method of Air Quality – Determination of Odour Concentration by Dynamic Olfactometry (EN13725) in the range of 20 to 80 ppb.

4.3 Water Quality Monitoring

4.3.1. The EIA Report has identified that the key water quality impact would be associated with the dredging works during the construction phase. Marine water quality monitoring for dissolved oxygen (DO), suspended solid (SS) and turbidity is therefore recommended to be carried out at selected WSD flushing water intakes. The impact monitoring should be carried out during the proposed dredging works to ensure the compliance with the water quality standards.

4.3.2. The updated EM&A Manual for EP-356/2009 (Version in March 2011) is approval by EPD on 29 April 2011. As such, the Action Level and Limit Level for the wet season (April – September) will be effected and applied to the water quality monitoring data from 30 April 2011.

Water Quality Monitoring Stations

4.3.3. It is proposed to monitor the water quality at 1 WSD salt water intakes and 7 cooling water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations of the Project are shown in **Table 4.4** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.4 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
C7	Windsor House	837193.7	816150.0
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0

Station Ref.	Location	Easting	Northing
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake	836268.0	816020.0

WATER QUALITY PARAMETERS

- 4.3.4. Monitoring of dissolved oxygen (DO), turbidity and suspended solids (SS) shall be carried out at WSD flushing water intakes and cooling water intakes. DO and Turbidity are measured in-situ while SS is determined in laboratory.
- 4.3.5. In association with the water quality parameters, other relevant data shall also be measured, such as monitoring location/position, time, sampling depth, water temperature, pH, salinity, dissolved oxygen (DO) saturation, weather conditions, sea conditions, tidal stage, and any special phenomena and work underway at the construction site etc.

SAMPLING PROCEDURES AND MONITORING EQUIPMENT

- 4.3.6. The interval between two sets of monitoring should not be less than 36 hours except where there are exceedances of Action and/or Limit Levels, in which case the monitoring frequency will be increased. **Table 4.5** shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.

Table 4.5 Marine Water Quality Monitoring Frequency and Parameters

Activities	Monitoring Frequency ¹	Parameters ²
During the 4-week baseline monitoring period	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
During marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
After completion of marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity

Notes:

- For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
- Turbidity should be measured in situ whereas SS should be determined by laboratory.

DISSOLVED OXYGEN AND TEMPERATURE MEASURING EQUIPMENT

- 4.3.7. The instrument should be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and use a DC power source. It should be capable of measuring:
- a dissolved oxygen level in the range of 0-20 mg/l and 0-200% saturation
 - a temperature of 0-45 degree Celsius
- 4.3.8. It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary. (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).
- 4.3.9. Should salinity compensation not be build-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

TURBIDITY MEASUREMENT INSTRUMENT

- 4.3.10. The instrument should be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. Hach model 2100P or an approved similar instrument).

SAMPLER

- 4.3.11. A water sampler comprises a transparent PVC cylinder, with a capacity of not less than 2 litres, and can be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Kahlsico Water Sampler or an approved similar instrument).

SAMPLE CONTAINER AND STORAGE

- 4.3.12. Water samples for suspended solids measurement should be collected in high-density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. as soon as possible after collection for analysis.

WATER DEPTH DETECTOR

- 4.3.13. A portable, battery-operated echo sounder shall be used for the determination of water depth at each designated monitoring station. This unit can either be handheld or affixed to the bottom of the workboat, if the same vessel is to be used throughout the monitoring programme.

SALINITY

- 4.3.14. A portable salinometer capable of measuring salinity in the range of 0-40 ppt shall be provided for measuring salinity of the water at each of monitoring location.

MONITORING POSITION EQUIPMENT

- 4.3.15. A hand-held or boat-fixed type digital Global Positioning System (GPS) with waypoint bearing indication or other equivalent instrument of similar accuracy shall be provided and used during

monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

CALIBRATION OF IN-SITU INSTRUMENTS

- 4.3.16. All in-situ monitoring instrument shall be checked, calibrated and certified by a laboratory accredited under HOKLAS or equivalent before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.
- 4.3.17. For the on site calibration of field equipment by the ET, the BS 127:1993, "Guide to Field and on-site test methods for the analysis of waters" should be observed.
- 4.3.18. Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.
- 4.3.19. Current calibration certificates of equipments are presented in [Appendix 4.2](#).

LABORATORY MEASUREMENT / ANALYSIS

- 4.3.20. Analysis of suspended solids has been carried out in a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd. Water samples of about 1L shall be collected at the monitoring stations for carrying out the laboratory SS determination. The SS determination work shall start within 24 hours after collection of the water samples. The SS determination shall follow APHA 19ed or equivalent methods subject to the approval of IEC and EPD.

ENHANCED WATER QUALITY MONITORING IN THE EX-WAN CHAI PUBLIC CARGO WORKING AREA AND THE CAUSEWAY BAY TYPHOON SHELTER

- 4.3.21. The enhanced water quality monitoring and audit programme is to avoid aggravation of odour nuisance from seawater arising from temporary reclamation in the ex-Wan Chai Public Cargo Working Area and the Causeway Bay Typhoon Shelter.
- 4.3.22. Dissolved oxygen monitoring at the intakes C6 and C7 in Causeway Bay Typhoon Shelter when there is temporary reclamation in Causeway Bay Typhoon Shelter and at the south-western and south-eastern corners of the ex-Wan Chai Public Cargo Working Area. The proposed water quality monitoring stations of the Project are shown in **Table 4.6** and [Figure 4.1](#).

Table 4.6 Marine Water Quality Stations for Enhanced Water Quality Monitoring

Station	Location
C6	Excelsior Hotel
C7	Windsor House
Ex-WPCWA-SW	South-western of the ex-Wan Chai Public Cargo Working Area
Ex-WPCWA-SE	South-eastern of the ex-Wan Chai Public Cargo Working Area

- 4.3.23. The monitoring of dissolved oxygen are to be carried out 3 days per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed,

except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).

DAILY SS MONITORING AND 24 HOURS TURBIDITY MONITORING SYSTEM

- 4.3.24. During dredging of the sediment at the south-western corner of the Causeway Bay Typhoon Shelter, daily monitoring of suspended solids and 24 hour monitoring of turbidity at the cooling water intakes (C6 and C7) shall be conducted.
- 4.3.25. The 24 hours monitoring of turbidity at the cooling water intakes (C6 and C7) shall be established by setting up a continuous water quality monitoring station in front of the intakes during the dredging activities. The monitoring system include the turbidity sensor and data logger which is capable of data capturing at every 5 minutes. The data shall be downloaded daily and compared with the Action and Limit level determined during the baseline water quality monitoring at the cooling water intake locations.

ADDITIONAL DISSOLVED OXYGEN MONITORING FOR CULVERT L WATER DISCHARGE FLOW

- 4.3.26. In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored.
- 4.3.27. With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013
- 4.3.28. The monitoring of dissolved oxygen are to be carried out once per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).

5. Monitoring Results

5.0.1. The environmental monitoring will be implemented based on the division of works areas of each designed project managed under different contracts with separate FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in **Figure 2.1** and **Figure 4.1**. The monitoring results are presented in according to the Individual Contract(s).

5.0.2. In the reporting month, the concurrent contracts are as follows:

- Contract no. HK/2009/01 – Wan Chai Development Phase II – Central-Wan Chai Bypass at Hong Kong Convention and Exhibition Centre; and
- Contract no. HK/2009/02 Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai East
- Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)
- Contract no. HY/2009/19- Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
- Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West
- Contract no. HY/2010/08 – Central- Wanchai Bypass Tunnel (Slip Road 8 Section)

5.0.3. The environment monitoring schedules for reporting month and coming month are presented in **Appendix 5.1**.

5.1 Noise Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC, Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

5.1.1. The proposed division of noise monitoring stations are summarized in **Table 5.1** below.

Table 5.1 Noise Monitoring Station for Contract nos. HK/2009/01 and HK/2009/02

Station	Description
M1a	Harbour Road Sports Centre

5.1.2. Four limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 01, 08, 15 and 23 December 2015 in this reporting month.

5.1.3. Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 01, 08, 15 and 23 December 2015. As such, the exceedance was considered as non-Project related.

- 5.1.4. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2.**

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 5.1.5. The noise monitoring for HY/2009/15 was commenced on 10 November 2010. The proposed division of noise monitoring stations are summarized in **Table 5.2** below.

Table 5.2 Noise Monitoring Station for Contract no. HY/2009/15

Station	Description
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station

- 5.1.6. No action or limit level exceedance was recorded in this reporting month.
- 5.1.7. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2.**

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.1.8. The proposed division of noise monitoring stations are summarized in **Table 5.3** below.

Table 5.3 Noise Monitoring Station for Contract no. HY/2009/19

Station	Description
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

- 5.1.9. Two limit level exceedances were recorded at monitoring station M6 - HK Baptist Church Henrietta Secondary School on 11 and 16 December 2015 in this reporting month.
- 5.1.10. Major traffic noise observed during monitoring was considered as the major noise contribution. As such, the limit level exceedances were concluded as non-project related.
- 5.1.11. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2.**

Contract no. HY/2010/08-Central-Wanchi Bypass Tunnel (Slip Road 8 Section)

5.1.12. The proposed division of noise monitoring stations are summarized in **Table 5.4** below.

Table 5.4 Noise Monitoring Station for Contract no. HY/2010/08

Station	Description
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station

5.1.13. No action or limit level exceedance was recorded in this reporting month.

5.1.14. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2.**

5.2 Real-time Noise Monitoring

Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

5.2.1 As the marine-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

5.2.2 The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.

5.2.3 The major work activities for Contract no. HY/2009/11 was confirmed substantial complete by RSS on 4 January 2012. The construction site was handed over to contractor HY/2009/19 on 31 December 2011 and the FEP-01/356/2009 was surrendered on 22 Oct 2012.

5.2.4 Real-time noise monitoring at FEHD Hong Kong Transport Section Whitfield Depot commenced external wall renovation since 1 June 2012

Table 5.5 Real Time Noise Monitoring Station for Contract no. HY/2009/19

District	Station	Description
North Point	RTN2a	Electric Centre

- Real time noise monitoring results and graphical presentation during night time period are for information only.
- RTN2 had been relocated to RTN2a since 5 Oct 2012
- RTN1 monitoring had been finished on 28 Nov 2012

- 5.2.5 Limit level exceedance was recorded at RTN2a-Electric Centre on 15 December 2015 during daytime in the reporting month. On 15 December 2015, concreting was undertaken by Contract HY/2009/19 while steel bar cutting works by saw cutter for Hong Kong Electric Centre was conducted at the roof top by non-CWB Contractor immediately next to the noise monitoring station and was considered as major noise contribution. As such, the exceedance was considered as non-Project related.

- 5.2.6 Details of real time noise monitoring results and graphical presentation can be referred to **Appendix 5.5.**

5.3 Air Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 5.3.1. Air monitoring was commenced on 1 April 2011 in response to the commencement of the land-filling work for Contract no. HK/2009/01. The proposed divisions of air monitoring stations are summarized in **Table 5.6** below.

Table 5.6 Air Monitoring Stations for Contract no. HK/2009/01

Station	Description
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE Site Office

- 5.3.2. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3.**

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- 5.3.3. Air monitoring was commenced in mid-January 2011 for the land-filling work for Contract no. HK/2009/02. The proposed division of air monitoring stations are summarized in **Table 5.7** below. No exceedance was recorded in the reporting month.

Table 5.7 Air Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

- 5.3.4. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3.**

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 5.3.5. Air monitoring was commenced on 15 March 2011 for the land filling work for Contract no. HY/2009/15. The proposed division of air monitoring stations are summarized in **Table 5.8** below.

Table 5.8 Air Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

- 5.3.6. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.3.7. The proposed division of air monitoring stations are summarized in **Table 5.9** below.

Table 5.9 Air Monitoring Stations for Contract no. HY/2009/19

Station	Description
CMA1b	Oil Street Site Office
CMA2a	Causeway Bay Community Centre

- 5.3.8. No exceedance was recorded in the reporting month.
- 5.3.9. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai West

- 5.3.10. The proposed division of air monitoring stations are summarized in **Table 5.10** below.

Table 5.10 Air Monitoring Stations for Contract no. HK/2012/08

Station	Description
CMA5b	Pedestrian Plaza

- 5.3.11. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2010/08- Central-Wanchai Bypass Tunnel (Slip Road 8 Section)

- 5.3.12. The proposed division of air monitoring stations are summarized in **Table 5.11** below. No exceedance was recorded in the reporting month.

Table 5.11 Air Monitoring Stations for Contract no. HY/2010/08

Station	Description
CMA3a	CWB PRE Site Office

- 5.3.13. No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

5.4 Water Monitoring Results.

- 5.4.1. [Action and Limit level of water quality monitoring was transited from wet season to dry season from 1 October 2015.](#)
- 5.4.2. [With respect to the completion of dredging activities at HKCEC and WCR, the removal of silt screen at monitoring stations C1, P1, P3, P4, P5 was conducted on 7 November 2015, for the water quality monitoring at C1, P1, P3, P4, P5 have been monitored for 4-week period after the removal of silt screen to confirm no water deterioration.](#)
- 5.4.3. [With respect to the completion of dredging activities at HKCEC and WCR, the removal of silt screen at monitoring stations WSD19 was conducted on 15 September 2015, for the water quality monitoring at WSD19 have been monitored for 4-week period after the removal of silt screen to confirm no water deterioration.](#)
- 5.4.4. With respect to the completion of the removal of the silt screen maintained under WDII Contract HK/2009/01 at WSD Saltwater Intake Station WSD19 on 15 September 2015, the monitoring location for the WQM station WSD19 would be finely adjusted to the location immediately outside the abstraction point of the respective WSD Saltwater Intake from 16 September 2015.
- 5.4.5. With respect to the resumption of seawall reinstatement works at Ex-PCWAE and the location of the Enhance DO monitoring station Ex-PCWAE SE would form an active construction area. The Enhance DO monitoring station Ex-PCWAE SE was temporarily suspended from 31 August 2015.
- 5.4.6. With respect to the construction stage and access condition at Ex-PCWAW and the potential DO concern within the area, the suspended Enhance DO monitoring within Ex-PCWAW area at the Enhance DO monitoring station Ex-PCWA-SE was resumed on 10 August 2015 at the finely adjusted monitoring location.
- 5.4.7. With respect to the commencement of seawall modification works at Ex-PCWAE and the location of the Enhance DO monitoring stations would form an active construction area, the Enhance DO monitoring at monitoring station EX-PCWA SW and SE were temporarily suspended from 2 March 2015 ebb tide and the monitoring at the location is tentatively to be resumed by early April 2015 to cater for the potential DO concern during Wet Season.

- 5.4.8. As informed by CWB RSS, the operation of the diverted Windsor House cooling intake was commenced on 20 Dec 2014 and the water quality monitoring at monitoring station C7 for Windsor House Cooling water intake was resumed on 22 Dec 2014
- 5.4.9. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.
- 5.4.10. With respect to the commencement of marine dredging works at WCR3 under contract HK/2009/02. The respective water quality monitoring station C1 were associated with HK/2009/01 and HK/2009/02.
- 5.4.11. As confirmed by CWB RSS, the operation of the pump station for Windsor House Cooling Water was suspended from 22 Oct 2014 for the Windsor House intake cooling intake scheme and temporary supply of freshwater from WSD water mains was provided to cooling water intake. The water quality monitoring for the respective cooling water intake at WQM station C7 was temporarily suspended from 22 Oct 2014.
- 5.4.12. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- 5.4.13. As confirmed by WDII RSS and IEC, the cross harbour dredging works have completed since 16 March 2012 while the dredging works for submarine outfall pipeline has completed since 29 November 2011, considering current construction stage and dredging Scenario, the water quality monitoring at stations WSD9 and WSD17 was temporarily suspended since 8 September 2014 flood tide.
- 5.4.14. With respect to the switching over of cooling water intake location, the water quality monitoring at the relocated intake station RW21-P789 under HK/2009/02 was commenced since 29 July 2013 and monitoring station C5e and C5w were temporarily suspended and switched over to monitoring station RW21-P789 on 29 July 2013 due to suspension of pump house operation.
- 5.4.15. As advised by WDII RSS, the water quality monitoring for WSD21 pump station with respect to HK/2009/02 was switched over to the relocated location since 12 March 2014. According to the EM&A Manual, the water quality monitoring station WSD21 was relocated to station RW21-P789 and the water quality monitoring at station WSD21 was temporarily suspended since 12 March 2014.
- 5.4.16. With respect to the commencement of marine dredging works under contract HY/2010/08. The respective water quality monitoring station C7 were associated with HY/2009/15 and HY/2010/08.
- 5.4.17. With respect to the commencement of marine dredging works under contract HK/2012/08/ The respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08 Since September 2013.
- 5.4.18. WQM events on 22 April 2013 at monitoring stations C2, C3, C4e and C4w were temporarily suspended. Upon confirmation with WDII RSS and the IEC, water quality monitoring at

- relocated intakes monitoring location P1, P3, P4 and P5 were commenced since 24 April 2013.
- 5.4.19. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.
- 5.4.20. As confirmed by CWB RSS, the marine piling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.
- 5.4.21. RSS confirmed that all Type III Dredging works under HK/2009/01 have been completed since Oct 2012.
- 5.4.22. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.
- 5.4.23. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3, 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.
- 5.4.24. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.
- 5.4.25. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others remain unchanged.
- 5.4.26. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration. Water quality monitoring at WSD10 and WSD15 was temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;
- 5.4.27. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and it was completed on 6 February 2012.

- 5.4.28. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Centre (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.
- 5.4.29. Water quality monitoring at C8 and C9 have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 12.

Table 5.12 Water Monitoring Stations for contracts with respect to remaining DP3 work areas after the completion of DP5 & DP6 in 2012 and intake diversion in 2013

Contract No.	Remaining DP3 and work area(s)	Relevant Water Monitoring Stations,	Division of WQM w.r.t tentative works commenced / to be commenced
HK/2009/01	WCR3	C1 ¹	Apr 2013
HK/2009/02	WCR3, WCR4, TWCR4	RW21-P789 ¹ , C1 ¹	Apr 2013
HK/2012/08	HKCEC2W, HKCEC2E	WSD19, P1 ³ , P3 ³ , P4 ³ , P5 ³	Aug 2013
HY/2009/15	TCBR2, TCBR3, TCBR1W, TPCWAE, TPCWAW	C6 ⁴ , C7, Ex-WPCWA SW, Ex-WPCWA SE (plus enhanced DO monitoring)	Nov 2010
HY/2010/08	TCBR3, TCBR4	C6 ⁴ , C7 (plus enhanced DO monitoring)	Mar 2014

Remarks:

- The water monitoring stations for WSD19, P1, P3, P4, P5 shall be associated with Contract No. HK/2009/01 prior to their transition to Contract HK/2012/08.
- 4 intakes (re-provisioned Wanchai WSD intake, Great Eagle Centre, China Resources Centre & Sun Hung Kai Centre constructed adjacent to each other) taken as a single group for silt screen protection and monitoring.
- Re-provisioned intake reference: P1: HKCEC Phase 1; P3: APA, P4: Shui On; P5: Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)
- Enhanced DO Monitoring at C6 since the intake abandon in May 2011.
- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 5.4.30. Water monitoring for Contract no. HK/2009/01 was commenced on 23 July 2010. The proposed division of water monitoring stations are summarized in **Table 5.13** below.

Table 5.13 Water Monitoring Stations for Contract no. HK/2009/01

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0

Remarks:

- The water monitoring stations for the dredging works under Contract No. HK/2009/01 should also include WSD9, WSD17, WSD 21 and C5 if water quality monitoring at these locations have not been carried out by others. Similarly, the water monitoring stations for the dredging works under Contract No. HK/2009/02 should also include WSD7, WSD9, WSD17, WSD 19, C1, C2, C3 and C4 if water quality monitoring at these locations have not been carried out by others.
- WSD7 and WSD20 water quality monitoring were temporarily suspended since 27 Apr 2012.
- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013.

Contract no. HK/2009/02 - Wan Chai Development Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

5.4.31. Water monitoring for Contract no. HK/2009/02 was commenced on 8 July 2010. The proposed division of water monitoring stations are summarized in **Table 5.14** below.

Table 5.14 Water Monitoring Stations for Contract no. HK/2009/02

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/WSD Wanchai salt water intake	836268.0	816020.0

Remarks:

- The water monitoring stations for the dredging works under Contract No. HK/2009/01 should also include WSD9, WSD17, WSD 21 and C5 if water quality monitoring at these locations have not been carried out by others. Similarly, the water monitoring stations for the dredging works under Contract No. HK/2009/02 should also include WSD7, WSD9, WSD17, WSD 19, C1, C2, C3 and C4 if water quality monitoring at these locations has not been carried out by others.
- Water quality monitoring at WSD9 and WSD 17 was implemented with respect to HK/2009/02 from 8 Feb 2012.
- C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
- WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

Contract no. HK/2012/08 - Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

5.4.32. Water monitoring for Contract no. HK/2012/08 was commenced on 5 March 2013. The proposed division of water monitoring stations are summarized in **Table 5.15** below.

Table 5.15 Water Monitoring Stations for Contract no. HK/2012/08

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 5.4.33. As the removal of reclamation work of TS1 at CBTS has been completed, all procedures have been rectified and complied with the conditions set in EP-356/2009 and FEP-04/356/2009.
- 5.4.34. Due to the commencement of the maintenance dredging on 10 November 2010, water quality monitoring for Contract no. HY/2009/15 was commenced on 9 November 2010. The proposed division of water monitoring stations are summarized in Table 5.16 below.
- 5.4.35. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.

Table 5.16 Water Monitoring Stations for Contract no. HY/2009/15

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C7	Windsor House	837193.7	816150.0

Remarks:

- The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.

Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.4.36. Due to the commencement of the marine bored piling on 28 Jan 2012, water quality monitoring for Contract no. HY/2009/19 was commenced on 28 Jan 2012.
- 5.4.37. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.
- 5.4.38. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Center (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine

adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.

- 5.4.39. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.
- 5.4.40. As per the meeting with the representative of Excelsior Hotel and World Trade Centre on 17 May 2011, they confirmed that the seawater intake for The Excelsior was no longer in use and replaced by the connected permanent water supply from WSD pipelines since 11 January 2011. Thus, the impact water quality monitoring for the cooling intake - C6 was terminated effective from 26 May 2011.
- 5.4.41. 24 hours monitoring of turbidity at the cooling water intakes at C7 was conducted. With respect to the seawall collapsing at TS4 on 17 November 2011, the 24 hours turbidity monitoring and was kept in November 2011. Since the reinstating the seawall was completed on 13 January 2012 and no any water deterioration was performed, 24 hour turbidity monitoring was then suspended on 27 January 2012.
- 5.4.42. Water monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in **Appendix 5.4**.

Table 5.17 Summary of Water Quality Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	1	0	0
HK/2012/08	WSD19	0	0	5	1	0	0	0	0	0	3	0	0
	P1	0	0	0	0	0	0	0	0	0	0	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	0	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	1	0	1
HK/2009/02	RW21-P789	0	0	0	1	0	0	0	0	1	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	5	2	0	0	0	0	1	5	0	1

- Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.
- WSD9 and WSD17 were implemented with respect to HK/2009/02 from 8 Feb 2012.
 - 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 were completed on 6 Feb 2012.
 - C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
 - C8 & C9 was temporary suspended on 30 March 2013 due to the marine works for Contract no. HY/2009/19 had been completed on 4 March 2013
 - WSD7 and WSD20 were temporarily suspended from 27 Apr 2012

- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013
- C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
- WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
- Maintenance responsibility of silt screen C1, P3, P4 and P5 are under Contract HK/2009/01.
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
- Water quality monitoring for Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the diversion scheme and was resumed since 22 December 2014.
- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

5.4.43. There was 6 action and 7 limit level of turbidity exceedances, and no action and 1 limit level exceedances of suspended solids recorded in the reporting month. Investigation found that the exceedances recorded in this reporting month were not related to Project works. The details of recorded exceedance can be referred to the **Section 6.4**.

5.4.44. Enhanced DO monitoring at 4 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period. The action and limit level exceedances of water quality monitoring are summarized in **Table 5.18**.

Table 5.18 Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month

Contract no.	Water Monitoring Station	Mid-flood		Mid-ebb	
		DO		DO	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	Ex-WPCWA SW	1	0	0	0
Total		1	0	0	0

Remarks: - Enhance DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation.
- Enhance DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area.

5.4.45. There was 1 action level and no limit level exceedances of enhanced dissolved oxygen recorded in this reporting month. Investigation found that the exceedances were not related to Project works. The details of recorded exceedances can be referred to the **Section 6.4**.

5.4.46. In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from

Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored. Details of additional DO monitoring results can be referred in **Appendix 5.4**.

- 5.4.47. With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013
- 5.4.48. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.
- 5.4.49. With respect to the resumption of seawall reinstatement works at Ex-PCWAE and the location of the Enhance DO monitoring station Ex-PCWAE SE would form an active construction area. The Enhance DO monitoring station Ex-PCWAE SE was temporarily suspended from 31 August 2015.

5.5 Waste Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 5.5.1. No inert C&D waste and non- inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.19**.

Table 5.19 Details of Waste Disposal for Contract no. HK/2009/01

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	62116.405	TKO137, TM38
Inert C&D materials recycled, m ³	NIL	5856.5	N/A
Non-inert C&D materials disposed, m ³	NIL	1673.69	SENT Landfill
Non-inert C&D materials recycled, kg	NIL	203993	N/A
Chemical waste disposed, kg	NIL	10250	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk Volume)	97428.2 (Bulk Volume)	South of Cheung Chau

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	NIL (Bulk Volume)	52250 (Bulk Volume)	East of Cha Chau
Dredged Sediment Requiring Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers	NIL (Bulk Volume)	6773 (Bulk Volume)	East of Cha Chau

- 5.5.2. There were no marine sediment Type 1- Open Sea Disposal and no marine sediments Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East

- 5.5.3. No inert C&D waste and Non-inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.20**.

Table 5.20 Details of Waste Disposal for Contract no. HK/2009/02

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	276075.1	TKO137 / TM 38
Inert C&D materials recycled, m ³	NIL	18161	N/A
Non-inert C&D materials disposed, m ³	NIL	1515.103	SENT Landfill
Non-inert C&D materials recycled, m ³	N/A	N/A	N/A
Chemical waste disposed, kg	NIL	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL	240222 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	NIL	146445 (Bulk volume)	East of Sha Chau

- 5.5.4. There were no marine sediment Type 1 – Open Sea Disposal and no Type 1 Open Sea Disposal (Dedicate Sties) & Type 2 – Confined Marine Disposal disposed in this reporting month.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 5.5.5. No Inert C&D waste and no non- inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.21**

Table 5.21 Details of Waste Disposal for Contract no. HY/2009/15

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Inert C&D materials disposed, m ³	NIL	141579.2	Tuen Mun Area 38	NIL
	NIL	65216	TKO137 FB	NIL
Inert C&D materials recycled, m ³	NIL	304	Ex-PCWA	NIL
	NIL	111.9	TS4	NIL
Non-inert C&D materials disposed, m ³	NIL	252.2	SENT Landfill	NIL
Non-inert C&D materials recycled, kg	NIL	299361.5	N/A	NIL
Chemical waste disposed, kg	NIL	8,200	N/A	NIL
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk Volume)	156909 (Bulk Volume)	Cheung Chau South	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	NIL (Bulk Volume)	322796 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers) m ³	NIL (Bulk Volume)	12640 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1W / Maintenance dredging
Marine Sediment (Type 2 – Confined Marine Disposal), m ³	NIL	9350 (Bulk Volume)	East of Sha Chau	Dredging from Eastern Breakwater of CBTS

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Marine Sediment (Type 1 – Open Sea Disposal) , m3	NIL (Bulk Volume)	600 (Bulk Volume)	East Sha Chau / South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 2– Confined Marine Disposal) , m3	NIL (Bulk Volume)	14,780 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers) , m3	NIL (Bulk Volume)	2,760 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

- 5.5.6. There were no Type 1 Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed, and no Type 1 Open Sea Disposal disposed in this reporting month.

Contract no. HY/2009/19 –Central- WanChai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.5.7. No inert C&D waste and non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.22**.

Table 5.22 Details of Waste Disposal for Contract no. HY/2009/19

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	355921.04	TM38
Inert C&D materials recycled, m ³	NIL	59367	N/A
Non-inert C&D materials disposed, m ³	NIL	1068.6	N/A
Non-inert C&D materials recycled, kg	NIL	333.14	N/A
Chemical waste disposed, L	NIL	2.12	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL	162	South Cheung Chau
Marine Sediment (Type 2 – Confined Marine Disposal) , m ³	NIL	681	East Sha Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	NIL	4976.00	

- 5.5.8. There was no marine sediment Type1- Open Sea Disposal and there was no Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated were disposed in this reporting month.

Contract no. HK/2012/08 –Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- 5.5.9. There was no Inert C&D waste and no non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.23**.

Table 5.23 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	4131	TM38
Inert C&D materials recycled, m ³	NIL	NIL	N/A
Non-inert C&D materials disposed, m ³	NIL	315	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk volume)	31759 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	NIL (Bulk volume)	108485 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

- 5.5.10. There were no Marine Sediment Type 1 – Open Sea Disposal and no marine sediment Type 1 – Open Sea Disposal (Delicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- 5.5.11. No Inert C&D waste and no non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.24**

Table 5.24 Details of Waste Disposal for Contract no. HY/2010/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	267660.2	N/A
Inert C&D materials recycled, m ³	NIL	NIL	N/A
Non-inert C&D materials disposed, m ³	NIL	NIL	N/A

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal)	NIL	55290	South Cheung Chau / Brothers Island *
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	NIL	27760	Brothers Island
Marine Sediment (Type 3 – Special Treatment)	NIL	7780	Brothers Island

Remarks: Under the condition of EP/MD/15-169, dredged sediment required to dispose at South of the Brothers since 9 Feb 2015.

- 5.5.12. There was no Type 1 – Open Sea Disposal, Type 3 – Special Treatment and Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

6. Compliance Audit

- 6.0.1. The Event Action Plan for construction noise, air quality and water quality are presented in **Appendix 6.1.**

6.1 Noise Monitoring

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 6.1.1 Four limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 01, 08, 15 and 23 December 2015 in this reporting month.

- 6.1.2 Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 01, 08, 15 and 23 December 2015. As such, the exceedance was considered as non-Project related.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- 6.1.3 Four limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 01, 08, 15 and 23 December 2015 in this reporting month.

- 6.1.4 Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 01, 08, 15 and 23 December 2015. As such, the exceedance was considered as non-Project related.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 6.1.5 No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 5.1.15. Two limit level exceedances were recorded at monitoring station M6 - HK Baptist Church Henrietta Secondary School on 11 and 16 December 2015 in this reporting month.

- 5.1.16. Major traffic noise observed during monitoring was considered as the major noise contribution. As such, the limit level exceedances were concluded as non-project related.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Road 8 Section)

- 6.1.6 No exceedance was recorded in the reporting month.

6.2 Real-time noise Monitoring

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 6.2.1. Limit level exceedance was recorded at RTN2a-Electric Centre on 15 December 2015 during daytime in the reporting month. On 15 December 2015, concreting was undertaken by Contract HY/2009/19 while steel bar cutting works by saw cutter for Hong Kong Electric Centre

was conducted at the roof top by non-CWB Contractor immediately next to the noise monitoring station and was considered as major noise contribution. As such, the exceedance was considered as non-Project related.

6.3 Air Monitoring

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 6.3.1 No exceedance was recorded in the reporting month.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel)

- 6.3.2 No exceedance was recorded in the reporting month.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 6.3.3 No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 6.2.1. No exceedance was recorded in the reporting month.

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West

- 6.2.2. No exceedance was recorded in the reporting month.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Road 8 Section)

- 6.2.3. No exceedance was recorded in the reporting month.

6.4 Water Quality Monitoring

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

- 6.4.1 There was turbidity exceedance recorded at C1 on 26 December 2015 in the reporting month.

- 6.4.2 After checking with the contractor, no marine activity was conducted on 26 December 2015. In view of no marine activity was conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- 6.4.3 There were turbidity exceedances recorded at RW21-P789 on 30 November 2015 and 18 December 2015 in the reporting month.

- 6.4.4 After checking with the contractor, no marine construction activity was conducted on 30 November 2015 and 18 December 2015. The installed silt screen was generally in order. In view of no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedances were not project related.
- 6.4.5 There was turbidity exceedances recorded at C1 on 26 December 2015 in the reporting month.
- 6.4.6 After checking with the contractor, no marine activity was conducted on 26 December 2015 while the location of the construction area was located at downstream of C1 monitoring station. In view of no marine activity was conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- 6.4.7 There was DO exceedance was recorded at Ex-WPCWA SW on 21 December 2015 in the reporting month.
- 6.4.8 After checking with contractor, despite seawall reinstatement works was conducted at TPCWAE on 21 December 2015, contractor mitigation measures including the use of silt curtain was generally in order while upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to Project works.

Contract no. HY/2009/19- Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 6.4.9 No exceedance was recorded in this reporting month.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- 6.4.10 There were turbidity exceedances recorded at WSD19 on 30 November 2015, 2, 7, 16, 18, 23 and 26 December 2016 in the reporting month.
- 6.4.11 After checking with contractor, despite trimming of grade 400 rock bedding was conducted near Zone A1 on 30 November 2015, 2 and 23 December 2015, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above, the exceedances were considered not project related.
- 6.4.12 Despite installation of slotted panels was conducted near Zone A2 on 7 December 2015, constructor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
- 6.4.13 No marine construction activity was conducted on 16, 18 and 26 December 2015. In view of no marine activity conducted, it was considered that the exceedances were not project related.

- 6.4.14 There was turbidity exceedance recorded at monitoring station P5 on 7 December 2015 in the reporting month.
- 6.4.15 After checking with contractor, despite installation of slotted panels was conducted near Zone A2 on 7 December 2015, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of no turbidity exceedance recorded at the monitoring stations located between construction area and P5 monitoring station and no turbidity exceedance was recorded on the subsequent monitoring, it was considered that the turbidity was not project related.
- 6.4.16 There was suspended solid exceedance recorded at monitoring station P5 on 7 December 2015 in the reporting month.
- 6.4.17 After checking with contractor, despite installation of slotted panels was conducted near Zone A2 on 7 December 2015, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of no suspended solid exceedance recorded at the monitoring stations located between construction area and P5 monitoring station and no suspended solid exceedance was recorded on the subsequent monitoring, it was considered that suspended solid exceedance was not project related.

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8)

- 6.4.18 No exceedance was recorded in the reporting month.

6.5 Review of the Reasons for and the Implications of Non-compliance

- 6.5.1 There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.
- 6.5.2 No non-compliances from monitoring was recorded in the reporting month.

6.6 Summary of action taken in the event of and follow-up on non-compliance

- 6.6.1 There was no particular action taken since no non-compliance was recorded from the site audit in the reporting period.

7. Cumulative Construction Impact due to the Concurrent Projects

- 7.0.1. According to Condition 3.4 of the EP-356/2009, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III, Central-Wanchai Bypass and Island Eastern Corridor Link projects.
- 7.0.2. According to the Final EM&A Report of Central Reclamation Phase III (CRIII) for Contract HK 12/02, the major construction activities were completed by end of January 2014 and no construction activities were undertaken thereafter and the water quality monitoring was completed in October 2011 and no Project-related exceedance was recorded for air and noise monitoring. It can be concluded that cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was insignificant.
- 7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area include caisson seawall installation, ELS works, road works and drainage works and Road P1 pedestrian road reinstatement were performed in December 2015 reporting month. As no project related exceedance were recorded during the reporting period, cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was considered as insignificant.
- 7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were tunnel works, ELS works and road works at Wan Chai East and caisson installation, D-wall construction and ELS works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and road works at Central Interchange, ELS works at Ex-PCWAW, ELS works and retaining wall construction at Victoria Park; D- wall construction, ELS works and tunnel works at TS3; IEC removal works and tunnel works at North Point area in the reporting month. In addition, other non-Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects was observed undertaken at Wan Chai North area.
- 7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.

8. Environmental Site Audit

8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08. No non-conformance was identified during the site audits.

8.0.2. Four site inspections for Contract no. HK/2009/01 were conducted on 2, 9, 17 and 23 December 2015 in reporting month. Results of these inspections and outcomes are summarized in **Table 8.1**.

Table 8.1 Summary of Environmental Inspections for Contract no. HK/2009/01

Item	Date	Observations	Action taken by Contractor	Outcome
151202_01	2-Dec-15	Drip tray shall be provided for oil container at slip road 3	Oil container has been removed and disposed.	Completion as observed on 9 December 2015
151209_01	9/12/2015	Drip tray shall be provided to oil container (Stage 1)	Oil container has been removed and disposed.	Completion as observed on 17 December 2015

8.0.3. Four site inspections for Contract no. HK/2009/02 were carried out on 3, 10, 16 and 23 December 2015 in reporting month. Results of these inspections and outcomes are summarized in **Table 8.2**.

Table 8.2 Summary of Environmental Inspections for Contract no. HK/2009/02

Item	Date	Observations	Action taken by Contractor	Outcome
151203_01	3-Dec-15	Hole of drip tray under mechanical pump shall be covered at WCR3	The hole of drip tray has been covered at WCR3.	Completion as observed on 10 December 2015.
151203_02	3-Dec-15	The gap of silt curtain at RW21-P789 shall be minimized to properly maintain the silt curtain condition.	Silt curtain at RW21-P789 has deployed to seabed level.	Completion as observed on 16 December 2015.
151216_01	16-Dec-15	Hole and gap shall be repaired for silt curtain at RW21-P789, and ensure it is properly maintained.	Silt curtain was repaired and properly deployed around RW21-P789.	Completion as observed on 23 December 2015.

8.0.4. Four site inspections for Contract no. HY/2009/15 were carried out on 2, 9, 15 and 22 December 2015 in reporting month. The results of these inspections and outcomes are summarized in **Table 8.3**.

Table 8.3 Summary of Environmental Inspections for Contract no. HY/2009/15

Item	Date	Observations	Action taken by Contractor	Outcome
151209_1	9-Dec-2015	Review the conditioning and coagulant dosage applied to ensure no turbid discharge (EX-PCWAW)	No further turbid discharge was observed	Completed as observed on 15 December 2015
151215_1	15-Dec-2015	Discharge point of washing sink shall be connected to waste water treatment plant	Discharge point of washing sink has been connected to	Completed as observed on 22 December 2015

Item	Date	Observations	Action taken by Contractor	Outcome
		(EX-PCWA East)	collection pit (EX-PCWA East)	

- 8.0.5. Four site inspections for Contract no. HY/2009/19 were carried out on 2, 9, 17 and 23 December 2015 in reporting month. Results of these inspections and outcomes are summarized in **Table 8.4**.

Table 8.4 Summary of Environmental Inspections for Contract no. HY/2009/19

Item	Date	Observations	Action taken by Contractor	Outcome
151202_1	2/12/2015	Noise barriers provided to construction of substructure works shall installed according to EP condition (Portion III)	No further construction of substructure was observed and the barrier was installed as per requirement	Completion as observed on 21 December 2015

- 8.0.6. Four site inspections for Contract no. HK/2012/08 were carried out on 1, 8, 15 and 22 December 2015 in this reporting period. The results of these inspections and outcomes are summarized in **Table 8.5**

Table 8.5 Summary of Environmental Inspections for Contract no. HK/2012/08

Item	Date	Observations	Action taken by Contractor	Outcome
151208_01	8-Dec-15	Floating refuse shall be collected at Zone A2 area.	Floating refuse was cleared at Zone A2.	Completion as observed on 15 December 2015
151208_02	8-Dec-15	Silt curtain at the opening of water channel shall be repaired and properly maintain.	Silt curtain was repaired and properly deployed.	Completion as observed on 15 December 2015
151222_01	22-Dec-15	Muddy effluent at site exit and public road shall be cleaned regularly in an orderly manner.	The site exit and public road were cleaned properly.	Completion as observed on 29 December 2015
151222_02	22-Dec-15	Direct discharge from boxes was observed at water channel, contaminated effluent shall be collected in proper manner and treated before discharge.	Discharge was stopped and no further discharge was observed.	Completion as observed on 22 December 2015

- 8.0.7. Eight site inspections for Contract no. HY/2010/08 were carried out on 2, 3, 9, 11, 14, 16, 22 and 24 December 2015 in this reporting period. The results of these inspections and outcomes are summarized in **Table 8.6**

Table 8.6 Summary of Environmental Inspections for Contract no. HY/2010/08

Item	Date	Observations	Action taken by Contractor	Outcome
151202_1	2-Dec-15	Piping with idle ends shall be removed to avoid potential discharge (TS3)	Idle pipes were removed	Completion as observed on 3 December 2015
151202_2	2-Dec-15	The contractor shall critically review the storage holding tank to avoid overflow to nearby water (TS3)	The holding tank of concern was abandon from used.	Completion as observed on 9 December 2015
151202_3	2-Dec-15	Review the dosage and operation of waste water treatment plant to avoid turbid discharge (TS3)	No further turbid discharge was observed	Completion as observed on 3 December 2015
151202_4	2-Dec-15	Effluent pipe from the silting compartment of the waste water treatment plant shall be properly connected to a collection pit or disconnected (TS3)	The piping from the desilting compartment was stored properly to avoid accidental discharge.	Completion as observed on 14 December 2015
151202_5	2-Dec-15	Clean the leaked oil as chemical waste (TS3)	Leaked oil has been cleared	Completion as observed on 3 December 2015
151203_1	3-Dec-15	Damaged barrier around site boundary shall be repaired (Victoria Park)	Damaged barrier was repaired	Completion as observed on 9 December 2015
151203_2	3-Dec-15	Drip tray shall be provided for chemical containers	The chemical container was removed	Completion as observed on 9 December 2015
151209_1	9-Dec-15	Clear the soil deposit at the boundary of site location to prevent direct wash off of contaminated effluent (TS3 North)	Mud residue deposited has been cleared	Completion as observed on 16 December 2015
151209_2	9-Dec-15	Tarpaulin sheet shall be provided/reinstated after reposting of barge prior to resumption of excavated material transfer to prevent drop off	The tarpaulin sheeting was rearranged at proper position for excavated material transfer	Completion as observed on 11 December 2015
151211_1	11-Dec-15	Contractor was advised to clean the mud deposit within waste water treatment plant before resumption of plant operation to avoid discharge contamination (Victoria Park)	The mud residue within the treatment unit was cleared	Completion as observed on 14 December 2015
151211_2	11-Dec-15	Review the adequacy of the barrier in height to ensure sufficient height of 2.4m (Victoria Park)	The condition of the barrier was improve.	Completion as observed on 14 December 2015
151211_3	11-Dec-15	Clear the floating scum around works boundary (TS3)	Floating refuse have been cleared	Completion as observed on 14 December 2015

151211_4	11-Dec-15	Provide drip tray for chemical container (Victoria Park Road)	The chemical container was removed	Completion as observed on 14 December 2015
151214_1	14-Dec-15	Provide watering to breaking works (TS3)	No further concerned breaking works was observed	Completion as observed on 16 December 2015
151216_1	16-Dec-15	Critical review the capacity and operation of waste water treatment plant and avoid potential turbid discharge (TS3 West)	No further turbid discharge was observed	Completion as observed on 22 December 2015
151216_2	16-Dec-15	Drip tray shall be provided to oil containers (TS3)	Oil container was removed	Completion as observed on 31 December 2015
151224_1	24-Dec-15	Fine particular was observed at the outlet tank of the wastewater treatment system. The contractor was advised to review the operation condition and dosage and recirculate for treatment before discharge (TS3 West)	No further fine particulates were observed	Completion as observed on 29 December 2015
151224_2	24-Dec-15	Clean the mud/silt deposition to ensure proper settling prior to resuming the plant operation (Victoria Park)	The mud deposition was cleared	Completion as observed on 29 December 2015

9. Complaints, Notification of Summons and Prosecution

- 9.0.1. There was no environmental complaint received in this reporting month.
- 9.0.2. Referring to the complaint case regarding the illegal disposal of construction waste referred by EPD was received by ET on 17 November 2015, the updated 2nd and 3rd interim investigation report were submitted to the EPD on 17 December 2015 and 31 December 2015 respectively. In response to the complaint concern, additional water quality monitoring and additional site inspections have been conducted by the ET and the investigation findings were included in the interim investigation reports separately submitted to the EPD. In addition, the ET and IEC have conducted checking on the waste disposal records and site construction records with the CWB RSS team to confirm the key construction activities during the concerned period and the quantities of inert C&D material disposed. Upon further review on relevant records and follow up inspections on the implementation of site measures, the final investigation would be issued.
- 9.0.3. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 9.1**
- 9.0.4. Cumulative statistic on complaints and successful prosecutions are summarized in **Table 9.1** and **Table 9.2** respectively.

Table 9.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
Commencement works (Mar 2010) to last reporting month	44
December 2015	0
Total	44

Table 9.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	-	0	0

10. Conclusion

10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in **Table 10.1**.

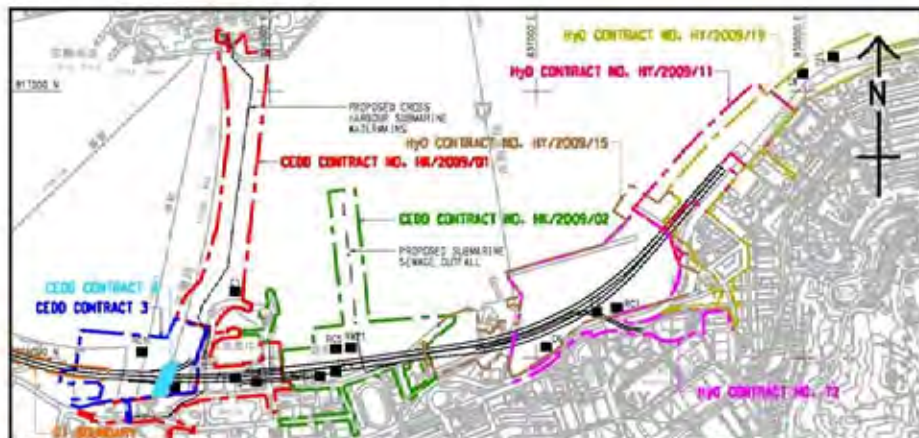
Table 10.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting Month

Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2009/01	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil
HK/2009/02	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Daily visual inspection of silt screen and silt curtain to ensure its operation properly. Implement silt curtain in accordance with the associated plans submitted to EPD.
HY/2009/15	<ul style="list-style-type: none"> Reinstatement of vertical seawall at TPCWAE 	<ul style="list-style-type: none"> Daily visual inspection of silt screen and silt curtain to ensure its operation properly Implement silt curtain in accordance with the associated plans submitted to EPD.
HY/2009/19	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> Nil
HK/2012/08	<ul style="list-style-type: none"> Construction of culvert Construction of dry dock Trimming of rock bedding 	<ul style="list-style-type: none"> To conform the installation and setting as in the silt screen and silt curtain deployment plan To space out noisy equipment and position as far as possible from sensitive receiver. Daily visual inspection of silt screen and silt curtain to ensure its operation properly
HY/2010/08	<ul style="list-style-type: none"> Diversion pipe maintenance 	<ul style="list-style-type: none"> To conform the installation and setting as in the silt screen and silt curtain deployment plan Daily visual inspection of silt screen and silt curtain to ensure its operation properly

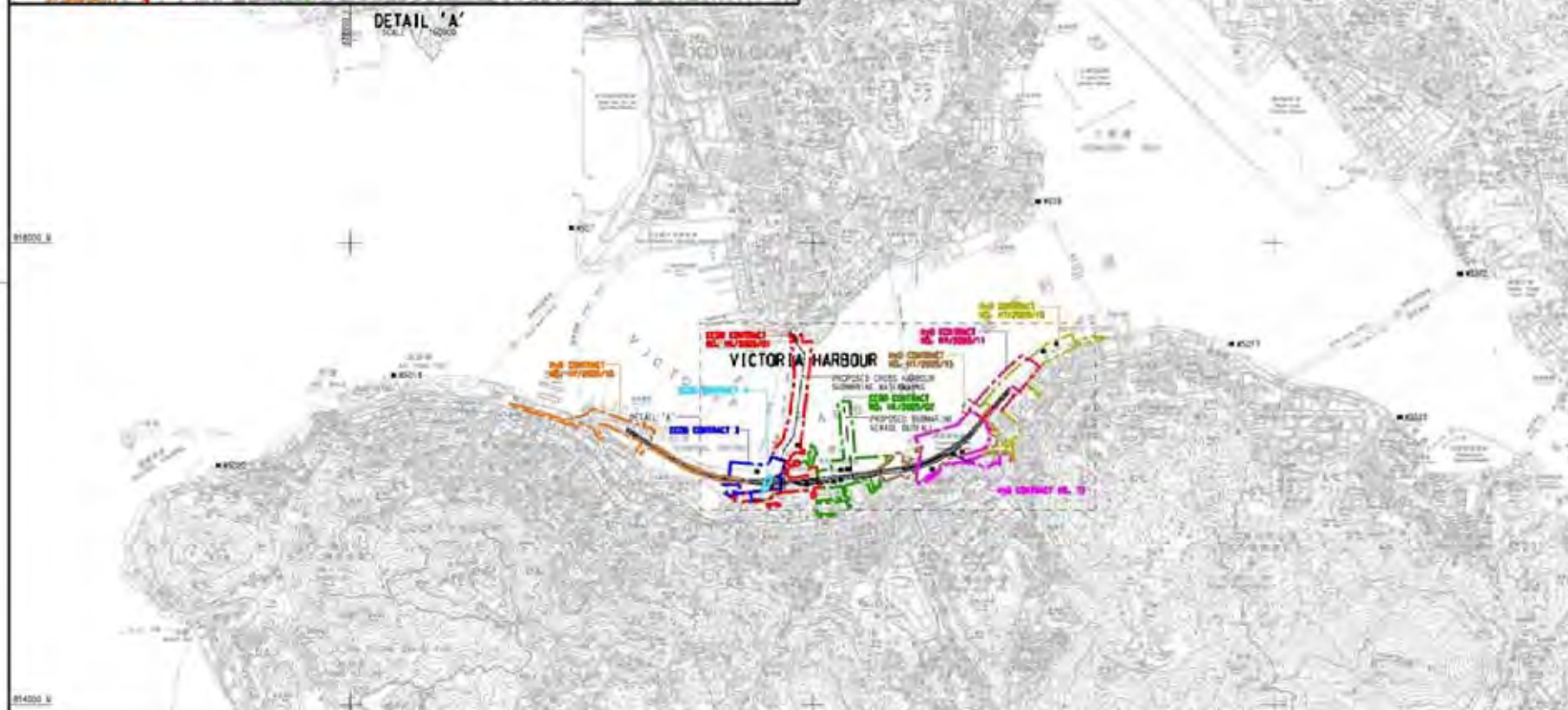


Figure 2.1

Project Layout



DETAIL 'A'



LEGEND:

■ WATER QUALITY MONITORING STATIONS

COOLING WATER INTAKES

- 01 HONG KONG CONVENTION AND EXHIBITION CENTRE EXTENSION
- 02 TELECOM HONGKONG ACADEMY 3 ON PERFORMANCE ARTS / SALT ON CENTRE
- 03 HONG KONG CONVENTION AND EXHIBITION CENTRE PHASE 3
- 04 WAN CHAI TOWER AND GREAT WALLS CENTRE
- 05 SUN HANG KAS CENTRE
- 06 PROPOSED EXHIBITION STATION 1 WORLD TRADE CENTRE
- 07 WINDSOR HOUSE
- 08 CITY SQUARE
- 09 PROVIDENT CENTRE
- 102 PROPOSED HERPA EXTENSION
- 103 SUN HANG KAS CENTRE / REPRESENTATION
- 107 WINDSOR HOUSE / TEMPORARY REPRESENTATION

WSD SALT WATER INTAKE

- #001 WAN CHAI
- #001 WAN CHAI (REPRESENTATION)
- #002 COLUMBIA SQUARE
- #003 SA KAN
- #004 CHA KAO LING
- #005 SA KAN RD
- #006 CLARITY BAY
- #007 SWINE BAY
- #008 KENNEDY TOWN

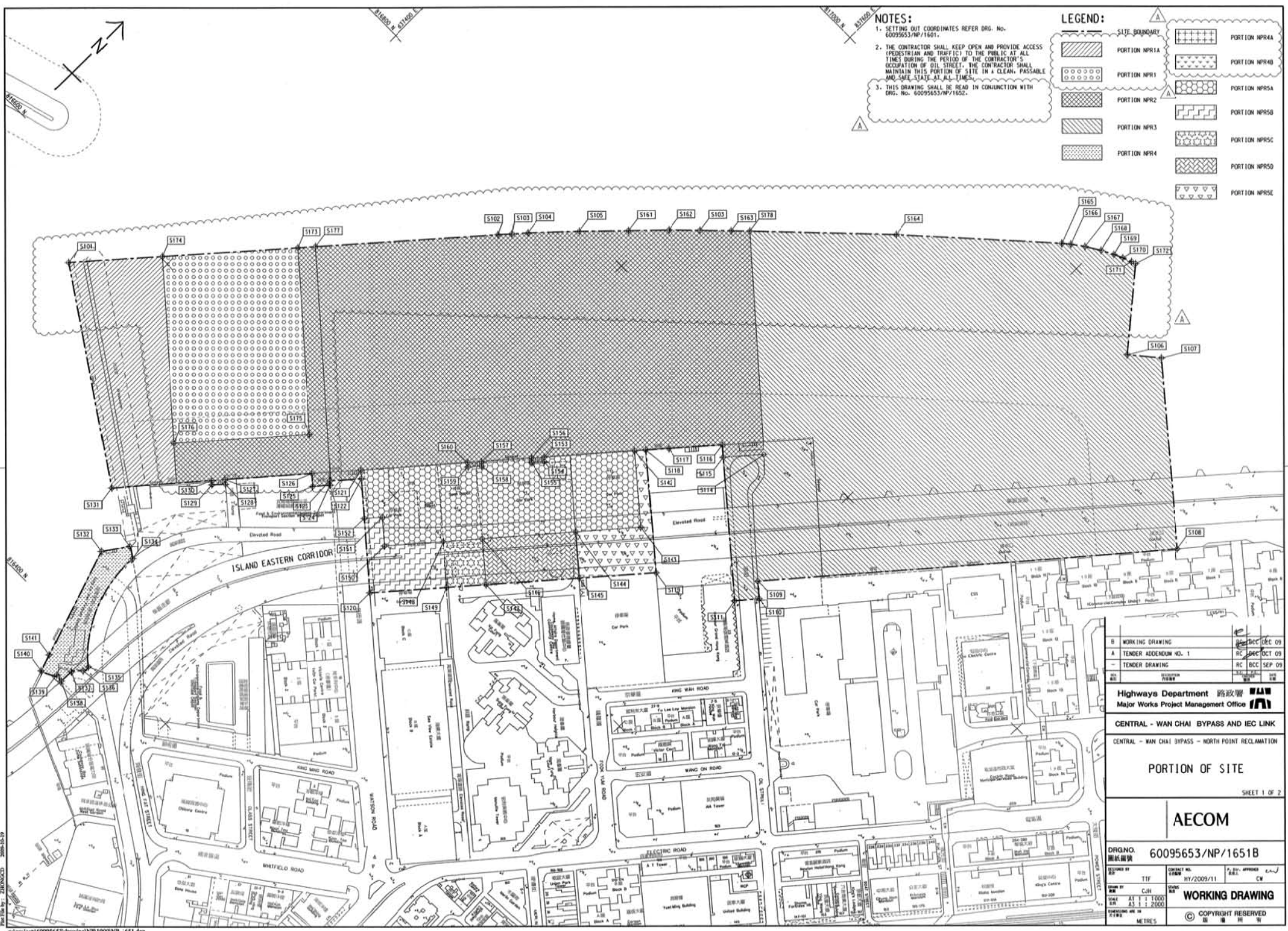
DESIGNATED PROJECT'S (DP)	WORK CONTRACT	DESIGNATED PROJECT'S (DP) NO.	COMPLETION DATE/END DATE
DP1 - CENTRAL WAN CHAI STAFFS WORKS INCLUDING 15 ROAD TUNNEL AND SLOPE WORKS	CEDO CONTRACT NO. HK/2009/01	DP1 + DP2 + DP3	APRIL 2010
DP2 - ROAD P2 AND OTHER ROADS EXHIBITION / DISTRICT DISTRIBUTION ROADS	CEDO CONTRACT NO. HK/2009/02	DP1 + DP2 + DP3	APRIL 2010
DP3 - PERMANENT AND TEMPORARY ROAD MAINTENANCE WORKS INCLUDING ASSOCIATED DRAINAGE WORKS IN WAN CHAI DEVELOPMENT PHASE 1T / W01/11 AREA	CEDO CONTRACT 3	DP1 + DP3	END 2011
DP4 - TEMPORARY EXHIBITION-GALLERY 1 (DP4 NOT TO BE IMPLEMENTED)	CEDO CONTRACT 4	DP1 + DP3	END 2011
DP5 - WAN CHAI EAST SEWAGE DUCTALL	CEDO CONTRACT 5	DP3	2010
DP6 - DRAINAGE FOR THE CROSS-HARBOUR WATER MAINS	HYD CONTRACT NO. HY/2009/11	DP3	18 AUGUST 2010
	HYD CONTRACT NO. HY/2009/15	DP1 + DP3	SEPTEMBER 2010
	HYD CONTRACT NO. HY/2009/16	DP1	OCTOBER 2010
	HYD CONTRACT NO. HY/2009/18	DP1	NOVEMBER 2010
	HYD CONTRACT 12	DP1 + DP3	MID 2010

DP1 IS COMPLETED BY DP - 31/4/2010
 DP2 IS COMPLETED BY DP - 31/6/2010
 DP3, DP5 AND DP6 ARE COMPLETED BY DP - 20/6/2010

土木工程師學會
 CEDO
 Civil Engineering and Development Ordinance

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P36, P37, P38, P39, P40, P41, P42, P43, P44, P45, P46, P47, P48, P49, P50, P51, P52, P53, P54, P55, P56, P57, P58, P59, P60, P61, P62, P63, P64, P65, P66, P67, P68, P69, P70, P71, P72, P73, P74, P75, P76, P77, P78, P79, P80, P81, P82, P83, P84, P85, P86, P87, P88, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98, P99, P100, P101, P102, P103, P104, P105, P106, P107, P108, P109, P110, P111, P112, P113, P114, P115, P116, P117, P118, P119, P120, P121, P122, P123, P124, P125, P126, P127, P128, P129, P130, P131, P132, P133, P134, P135, P136, P137, P138, P139, P140, P141, P142, P143, P144, P145, P146, P147, P148, P149, P150, P151, P152, P153, P154, P155, P156, P157, P158, P159, P160, P161, P162, P163, P164, P165, P166, P167, P168, P169, P170, P171, P172, P173, P174, P175, P176, P177, P178, P179, P180, 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NOTES:

- 1. SETTING OUT COORDINATES REFER DRG. NO. 60095653/NP/1601.
- 2. THE CONTRACTOR SHALL KEEP OPEN AND PROVIDE ACCESS (PEDESTRIAN AND TRAFFIC) TO THE PUBLIC AT ALL TIMES DURING THE PERIOD OF THE CONTRACTOR'S OCCUPATION OF OIL STREET. THE CONTRACTOR SHALL MAINTAIN THIS PORTION OF SITE IN A CLEAN, PASSABLE AND SAFE STATE AT ALL TIMES.
- 3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1652.

LEGEND:

	SITE BOUNDARY		PORTION NPR4A
	PORTION NPR1A		PORTION NPR4B
	PORTION NPR1		PORTION NPR5A
	PORTION NPR2		PORTION NPR5B
	PORTION NPR3		PORTION NPR5C
	PORTION NPR4		PORTION NPR5D
			PORTION NPR5E

B	WORKING DRAWING	DEC 09
A	TENDER ADDENDUM NO. 1	OCT 09
	TENDER DRAWING	SEP 09

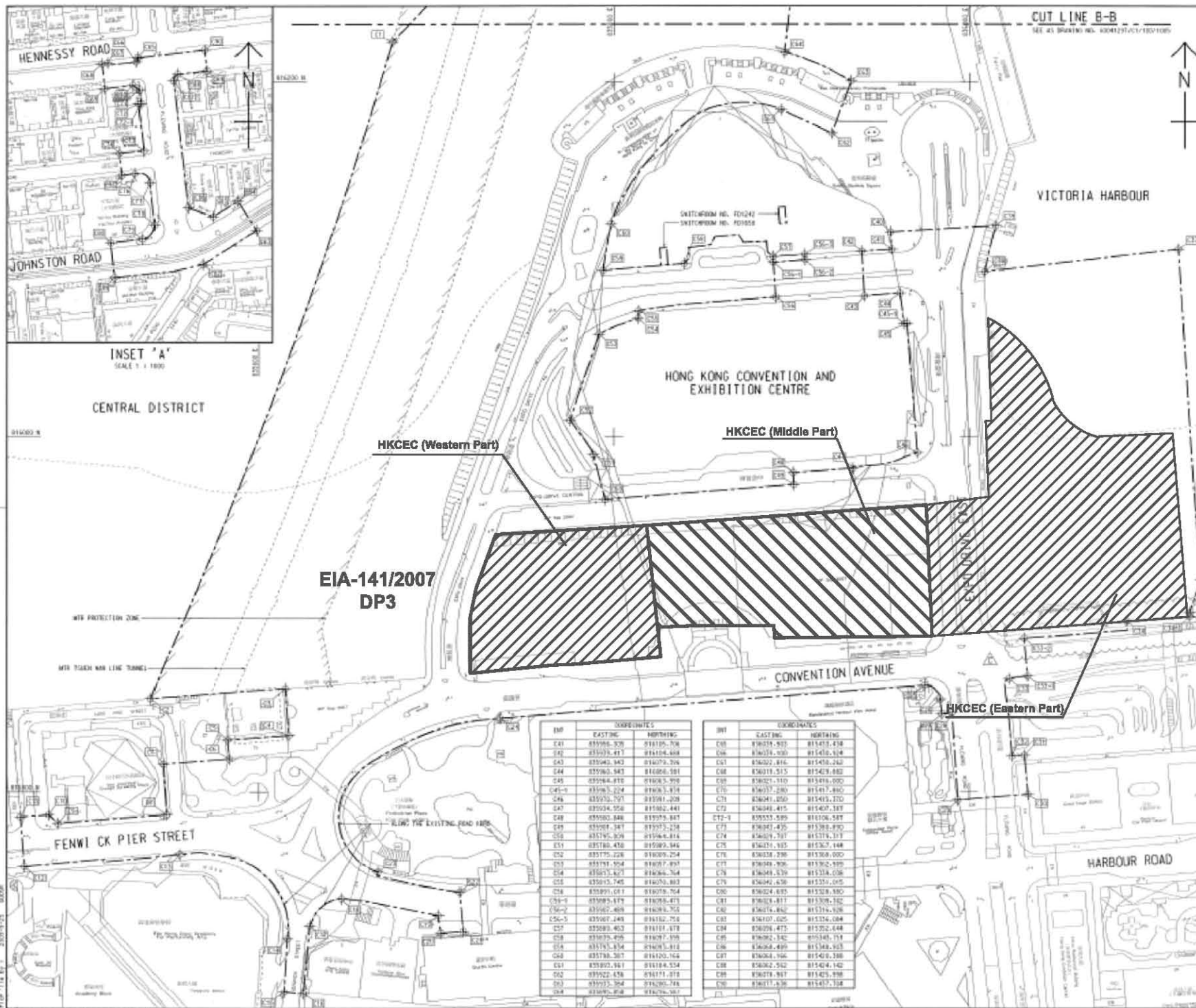
Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK
CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

PORTION OF SITE
SHEET 1 OF 2

AECOM

DRGNO.	60095653/NP/1651B
DATE	11/11/2009
SCALE	AS SHOWN
UNIT	METRE'S
DESIGNED BY	TTF
CHECKED BY	CJH
DATE	11/11/2009
STATUS	WORKING DRAWING
APPROVED BY	CW
DATE	11/11/2009
REVISION	



KEY PLAN
SCALE 1 : 5000

NOTE:

1. FOR NOTES & LEGEND, REFER TO DRAWING NO. 60041297/C1/100/1006C.

INT	COORDINATES	
	EASTING	NORTHING
C1	836875.205	816222.551
C2	836875.207	816222.549
C3	836874.365	816222.525
C4	836874.020	816222.014
C5	836874.402	816222.522
C6	836875.564	816222.612
C7	836876.565	816222.761
C8	836876.435	816222.747
C9	836876.435	816222.241
C10	836876.102	816222.050
C11	836876.565	816222.612
C12	836876.435	816222.747
C13	836876.435	816222.747
C14	836876.435	816222.747
C15	836876.435	816222.747
C16	836876.435	816222.747
C17	836876.435	816222.747
C18	836876.435	816222.747
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C26	836876.435	816222.747
C27	836876.435	816222.747
C28	836876.435	816222.747
C29	836876.435	816222.747
C30	836876.435	816222.747
C31	836876.435	816222.747
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C37	836876.435	816222.747
C38	836876.435	816222.747
C39	836876.435	816222.747
C40	836876.435	816222.747

C	TENDER ADDENDUM NO.4	SHEN YU SEP 08
E	TENDER ADDENDUM NO.2	SHEN YU SEP 08
A	TENDER ADDENDUM NO.1	SHEN YU SEP 08
-	TENDER DRAWING	SHEN YU SEP 08

土木工程發展局
Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

WAI CHAI DEVELOPMENT PHASE II -
WAN CHAI - WAI CHAI DEVELOPMENT
HONG KONG CONVENTION AND EXHIBITION CENTRE

SITE BOUNDARY SETTING OUT PLAN
(Contract no. HK/2009/01)

AECOM

DRGNO. 60041297/C1/100/1006C

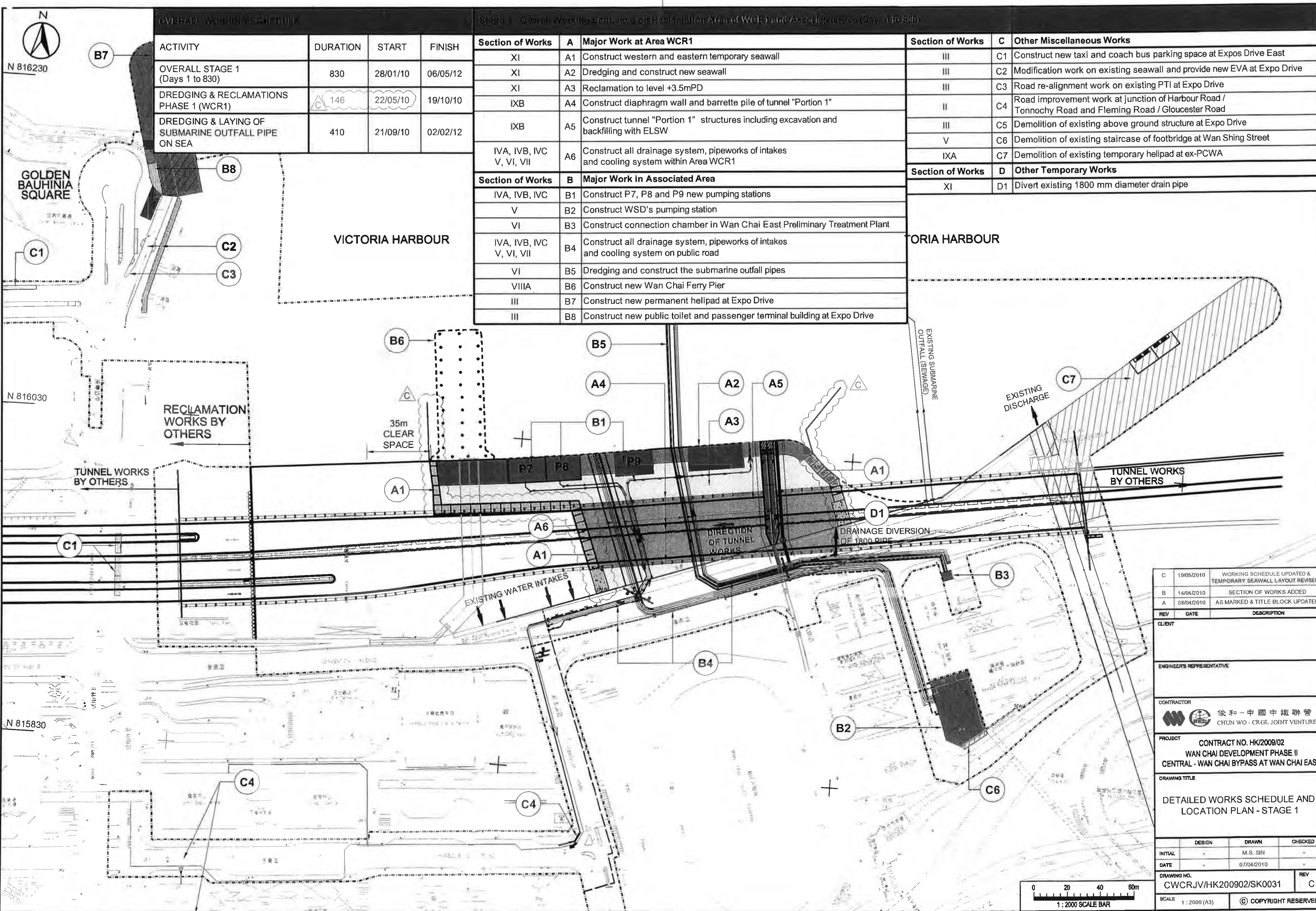
DATE: 11/11/2009

BY: 11/11/2009

DATE: 11/11/2009

DATE: 11/11/2009

DATE: 11/11/2009



OVERALL WORKING SCHEDULE			
ACTIVITY	DURATION	START	FINISH
OVERALL STAGE 1 (Days 1 to 830)	830	28/01/10	06/05/12
DREDGING & RECLAMATIONS PHASE 1 (WCR1)	146	22/05/10	19/10/10
DREDGING & LAYING OF SUBMARINE OUTFALL PIPE ON SEA	410	21/09/10	02/02/12

Stage 1 - Overall Working Schedule on Reclamation Area of WCR1 and Associated Area (Days 1 to 830)			
Section of Works	A	Major Work at Area WCR1	Section of Works
XI	A1	Construct western and eastern temporary seawall	III
XI	A2	Dredging and construct new seawall	
XI	A3	Reclamation to level +3.5mPD	
IXB	A4	Construct diaphragm wall and barrette pile of tunnel "Portion 1"	
IXB	A5	Construct tunnel "Portion 1" structures including excavation and backfilling with ELSW	
IVA, IVB, IVC V, VI, VII	A6	Construct all drainage system, pipeworks of intakes and cooling system within Area WCR1	
Section of Works	B	Major Work in Associated Area	Section of Works
IVA, IVB, IVC	B1	Construct P7, P8 and P9 new pumping stations	IXA
V	B2	Construct WSD's pumping station	
VI	B3	Construct connection chamber in Wan Chai East Preliminary Treatment Plant	
IVA, IVB, IVC V, VI, VII	B4	Construct all drainage system, pipeworks of intakes and cooling system on public road	OR IXB
VI	B5	Dredging and construct the submarine outfall pipes	
VIIIA	B6	Construct new Wan Chai Ferry Pier	
III	B7	Construct new permanent helipad at Expo Drive	
III	B8	Construct new public toilet and passenger terminal building at Expo Drive	

ORIA HARBOUR

C	19/05/2010	WORKING SCHEDULE UPDATED & TEMPORARY SEAWALL LAYOUT REVISED
B	14/04/2010	SECTION OF WORKS ADDED
A	08/04/2010	AS MARKED & TITLE BLOCK UPDATED

REV	DATE	DESCRIPTION
-----	------	-------------

CLIENT

ENGINEER'S REPRESENTATIVE

CONTRACTOR

後和-中國中鐵聯營
CHUN WO - CRGL JOINT VENTURE

PROJECT

CONTRACT NO. HK/2009/02
WAN CHAI DEVELOPMENT PHASE II
CENTRAL - WAN CHAI BYPASS AT WAN CHAI EAST

DRAWING TITLE

DETAILED WORKS SCHEDULE AND
LOCATION PLAN - STAGE 1

DESIGN	DRAWN	CHECKED
INITIAL	M.S. SIN	
DATE	07/04/2010	
DRAWING NO.	CWCRJV/HK200902/SK0031	REV
SCALE	1:2000 (A3)	C

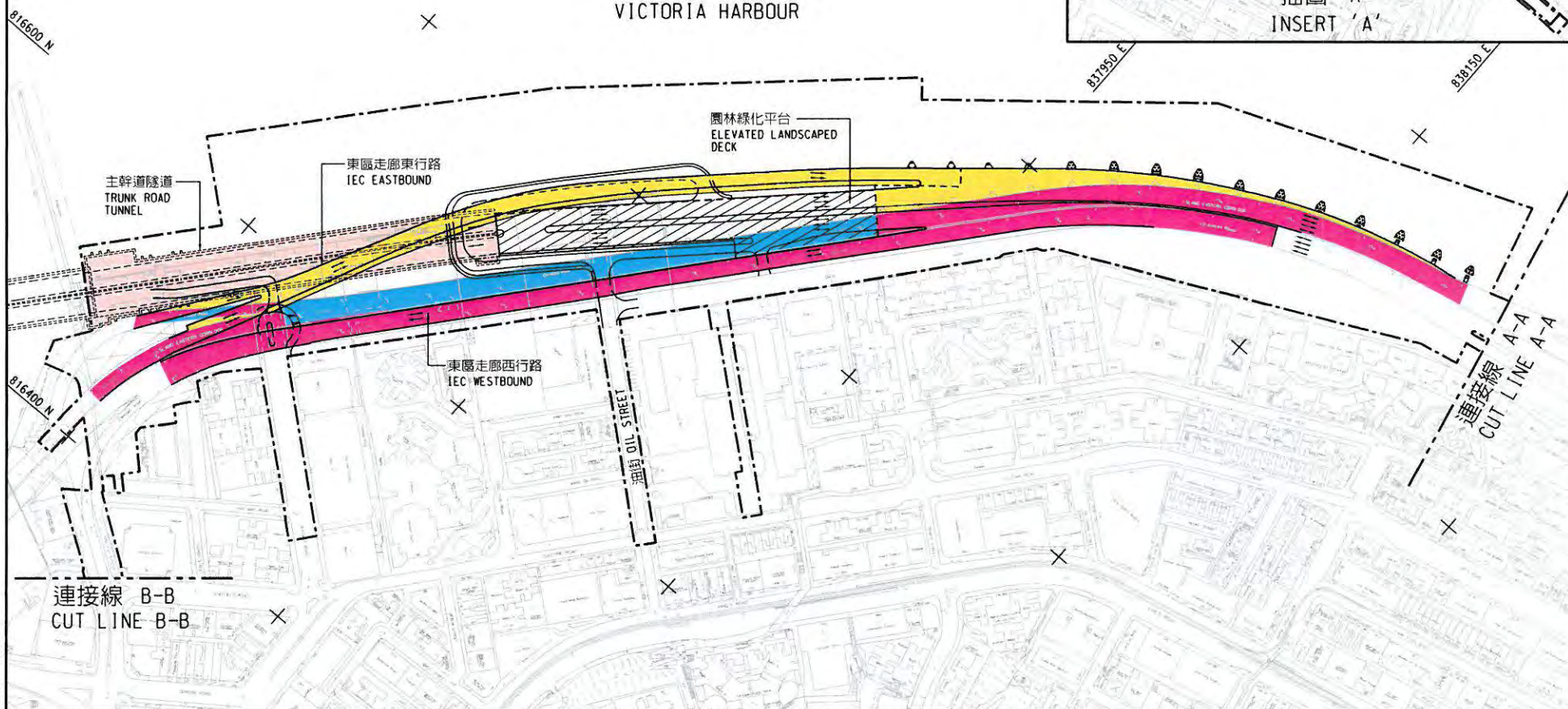
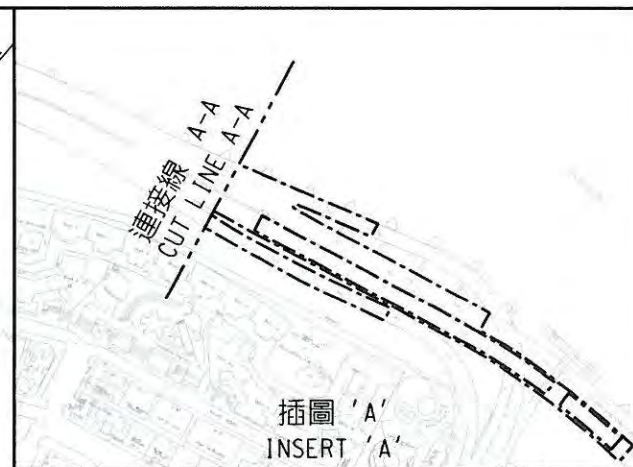
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圖例：
LEGEND:

- 地界範圍
SITE BOUNDARY
- ▨ 園林綠化平台
LANDSCAPED DECK
- 主幹道隧道
TRUNK ROAD TUNNEL
- 擬建高架道路
PROPOSED ELEVATED CARRIAGEWAY
- 現有高架行車道將予拆卸
EXISTING ELEVATED CARRIAGEWAY TO BE DEMOLISHED
- 現有高架行車道將予拆卸及重建
EXISTING ELEVATED CARRIAGEWAY TO BE DEMOLISHED AND RECONSTRUCTED



維多利亞海港 ×
VICTORIA HARBOUR



合約編號 HY/2009/19 - 中環灣仔繞道 - 北角段隧道及東區走廊連接路

CONTRACT NO. HY/2009/19 - CENTRAL-WAN CHAI BYPASS - TUNNEL (NORTH POINT SECTION) AND ISLAND EASTERN CORRIDOR LINK

SCALE 1 : 3000

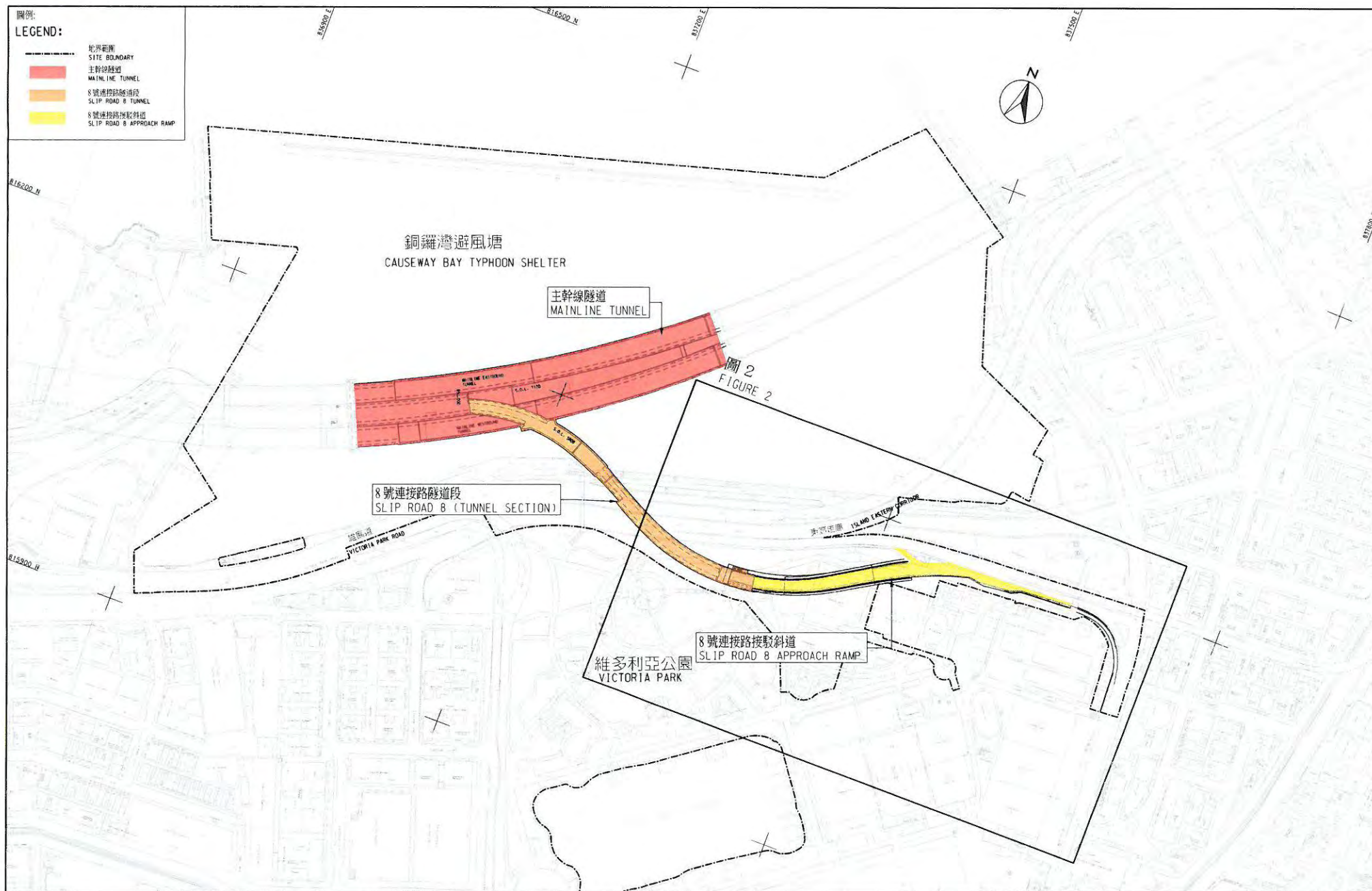


圖1- 合約編號 HY/2010/08中環灣仔繞道-8號連接路段隧道

FIGURE 1 - CONTRACT NO. HY/2010/08 - CENTRAL - WAN CHAI BYPASS - TUNNEL (SLIP ROAD 8 SECTION)

SCALE 1 : 3000

LEGEND:

WORKS AREA



WORKS AREA

DREDGING AREA FOR
MITIGATION OF ODOUR(DP3)

SITE BOUNDARY

SITE BOUNDARY

港口
HONG KONG PORT



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.

Highways Department
CONTRACT NO. HY/2009/15
CENTRAL-WAN CHAI BYPASS - TUNNEL
(CAUSEWAY BAY TYPHOON
SHELTER SECTION)

TITLE
LOCATION PLAN OF WORKS AREA

DWG. NO.
CWBT/EPD/001B

SCALE
1:1000 @ A0
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Figure 2.2

Project Organization Chart



Project Organization Chart

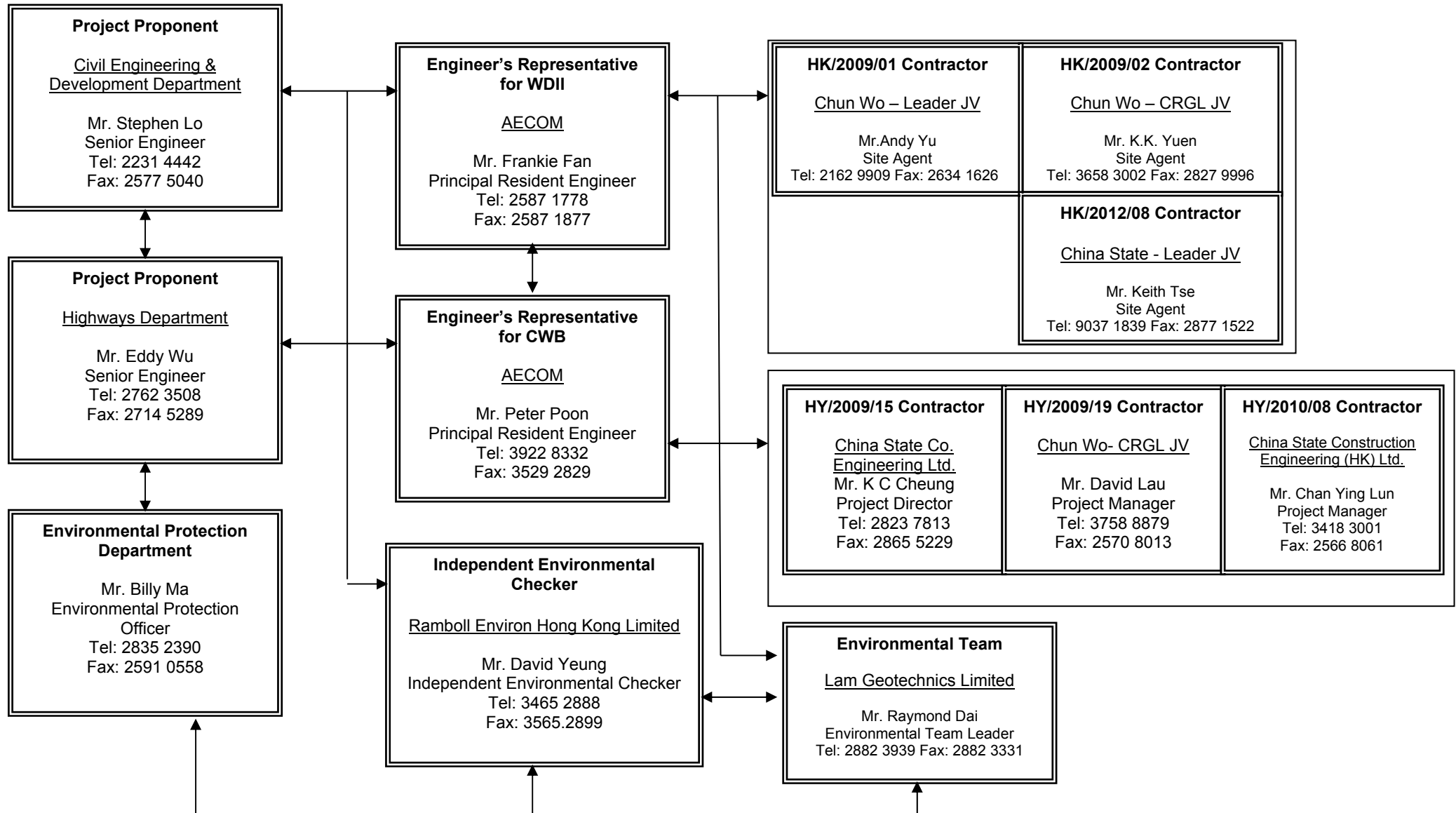
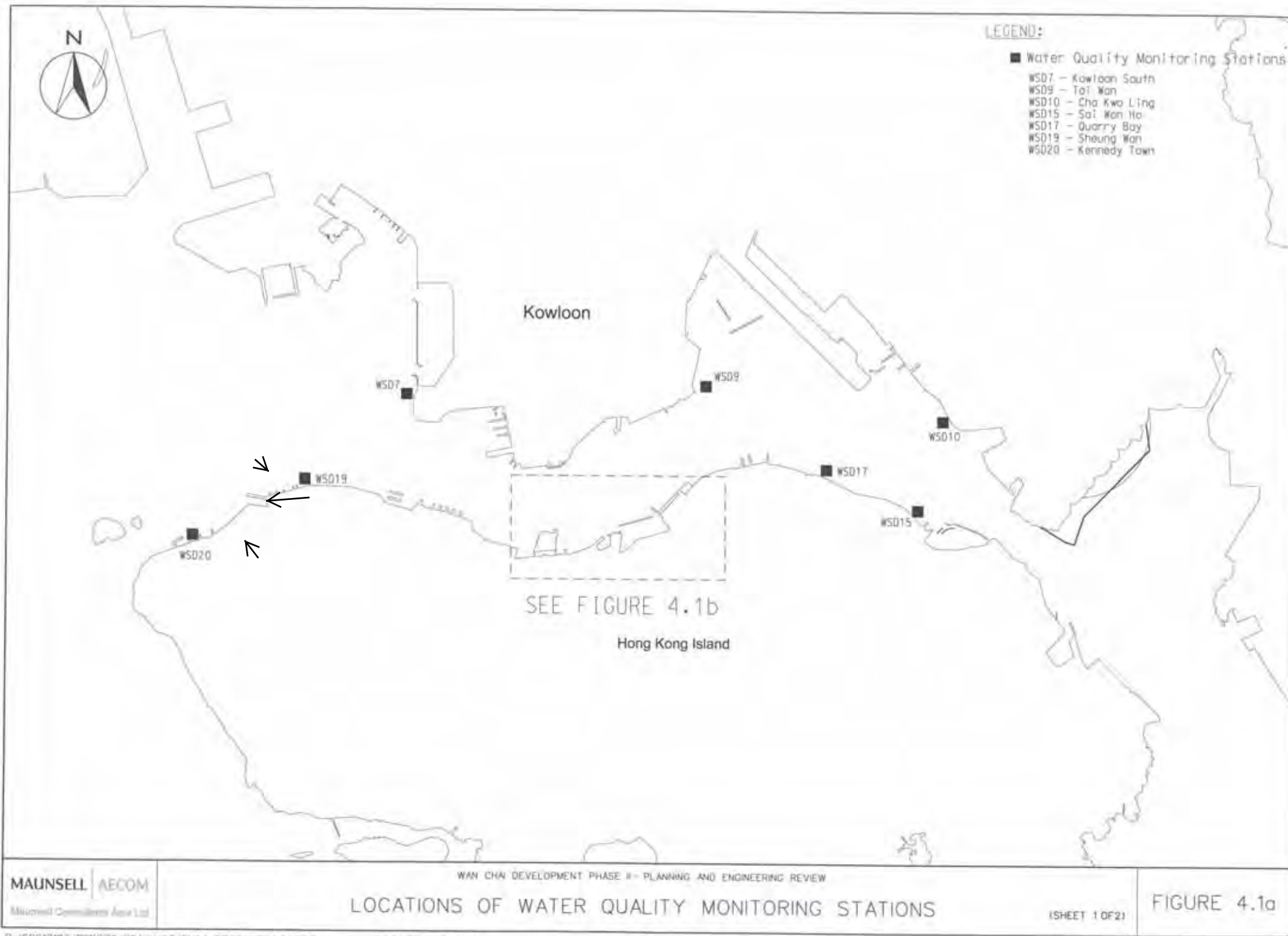
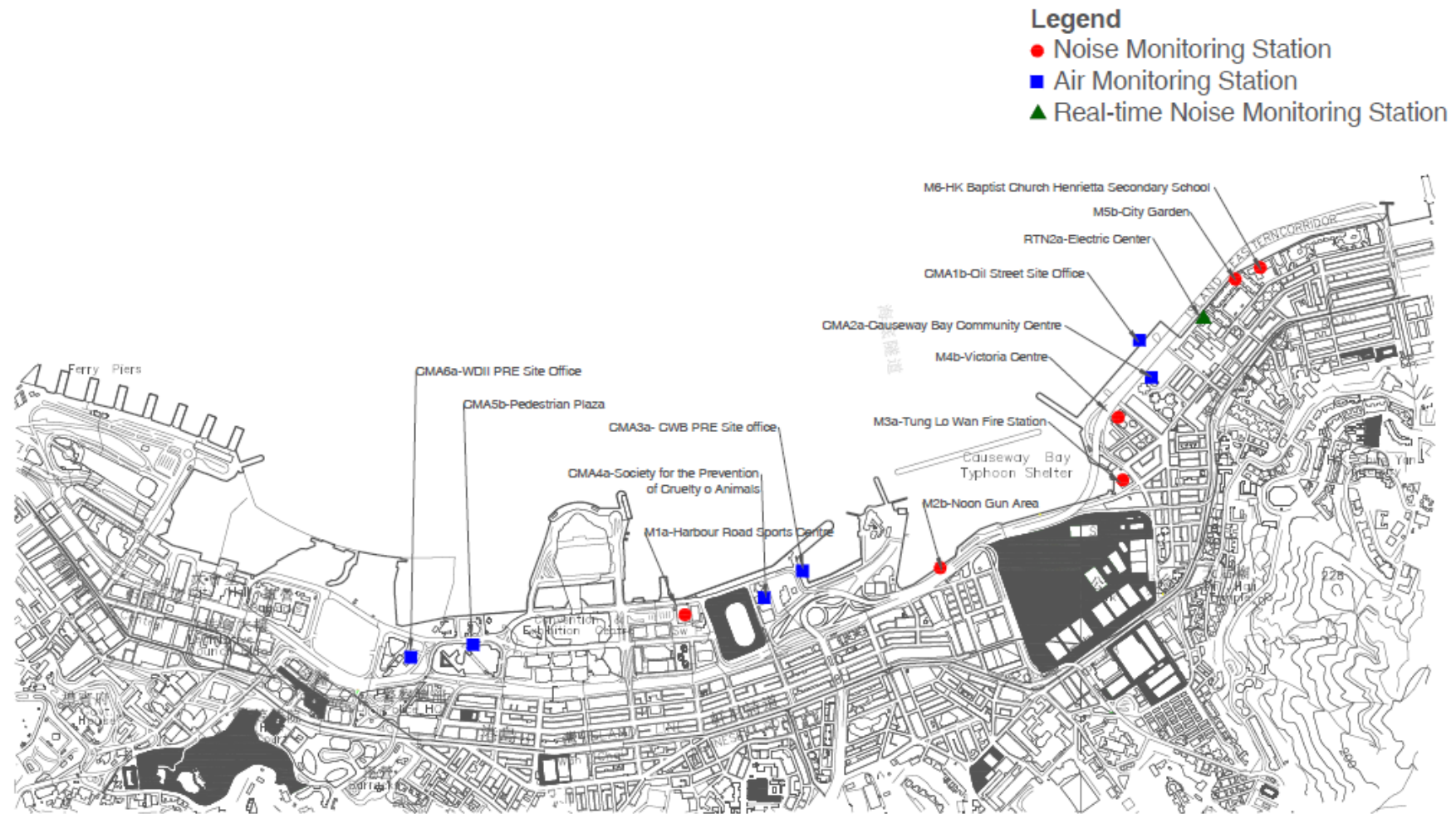




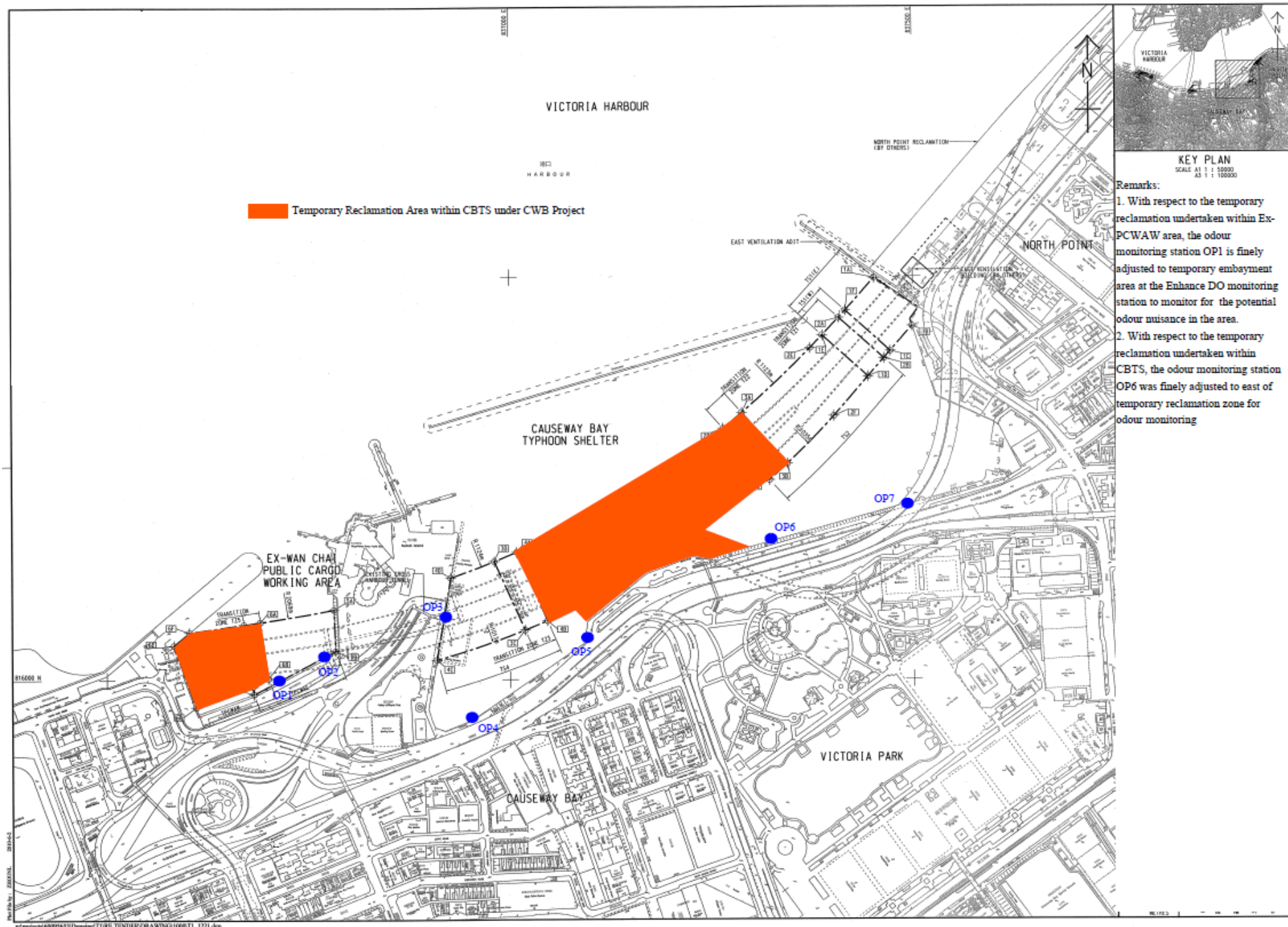
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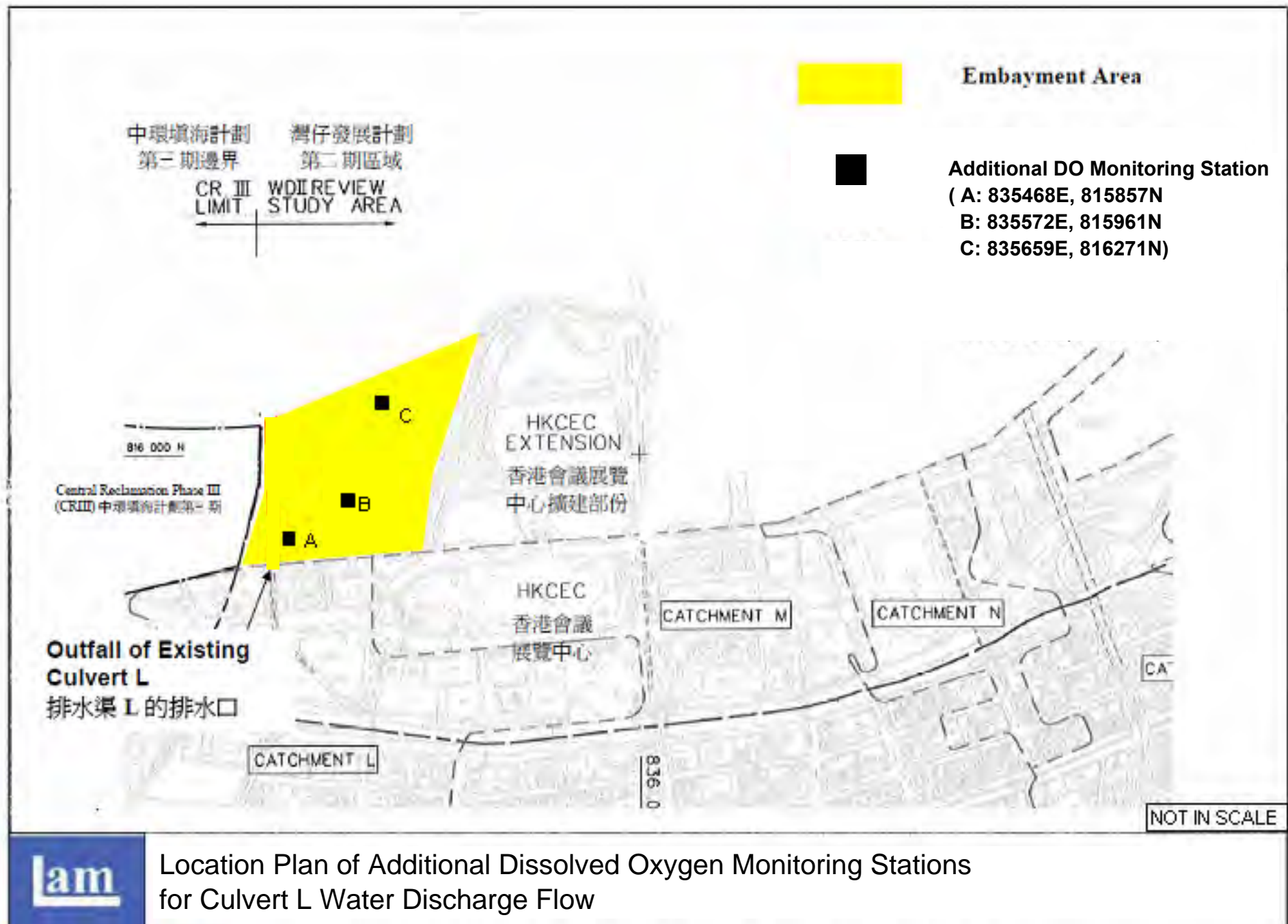
Locations of Monitoring Stations





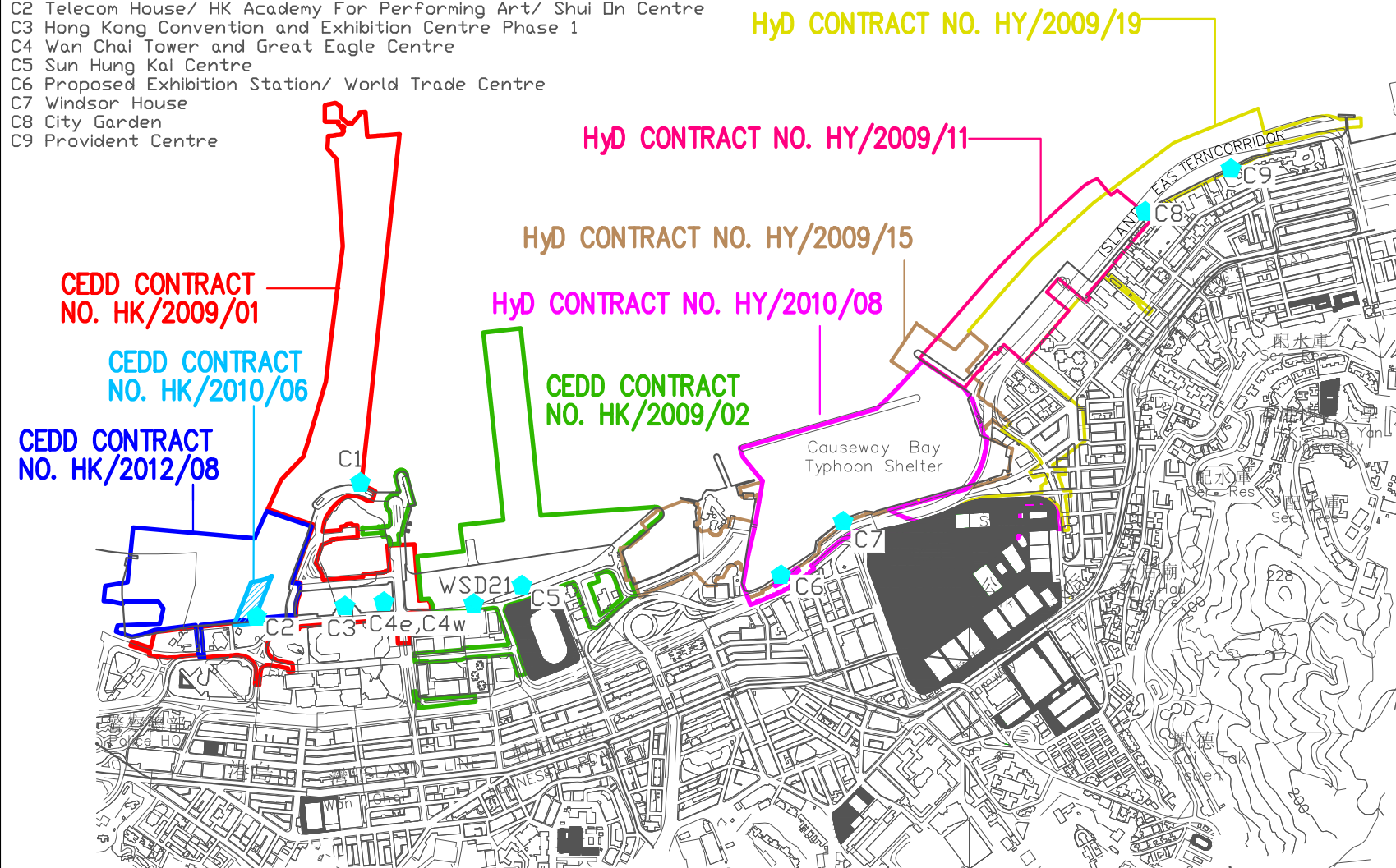
LOCATIONS OF ENVIRONMENTAL MONITORING STATIONS





Legend

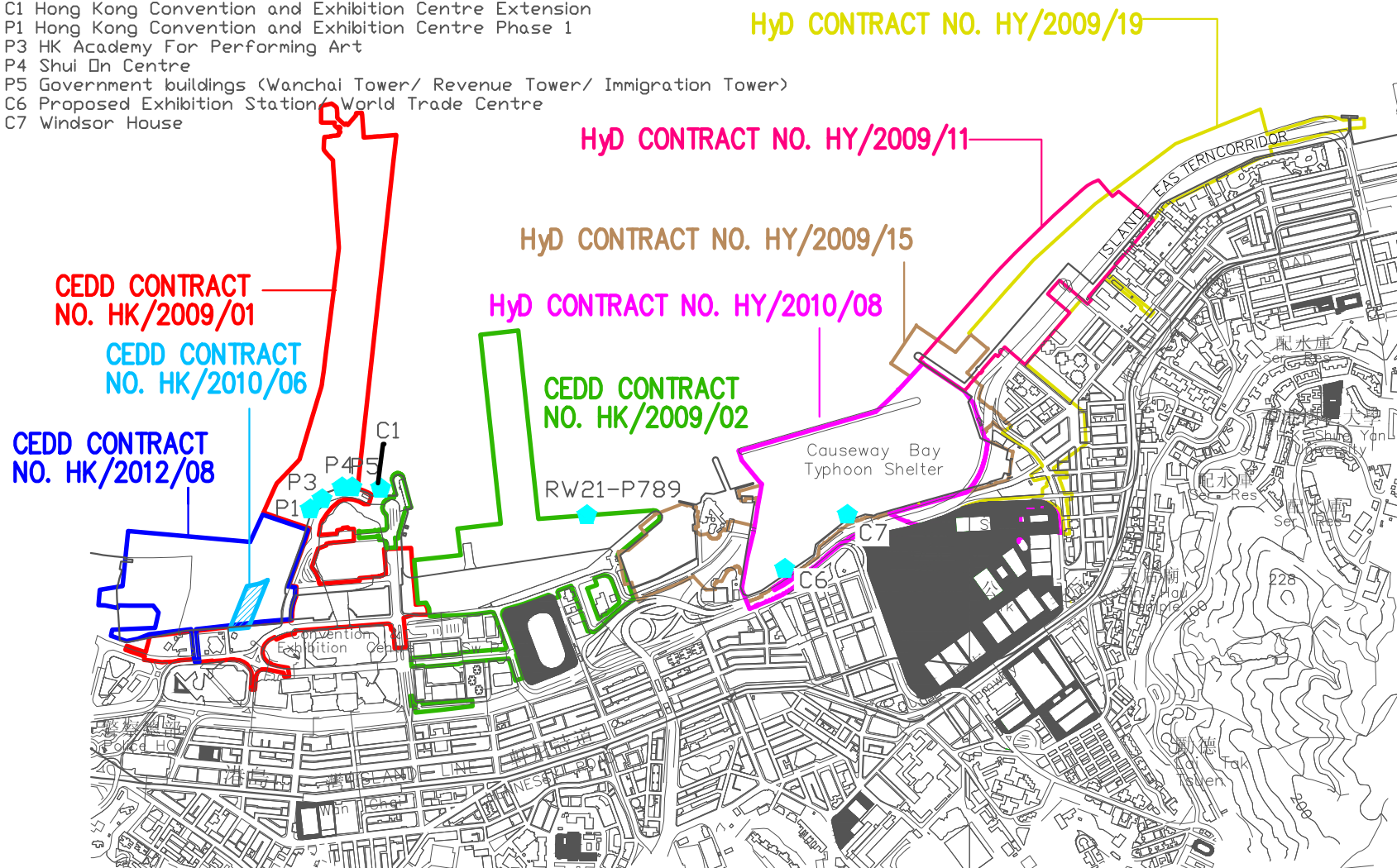
- ◆ Water Quality Monitoring Stations
- C1 Hong Kong Convention and Exhibition Centre Extension
- C2 Telecom House/ HK Academy For Performing Art/ Shui On Centre
- C3 Hong Kong Convention and Exhibition Centre Phase 1
- C4 Wan Chai Tower and Great Eagle Centre
- C5 Sun Hung Kai Centre
- C6 Proposed Exhibition Station/ World Trade Centre
- C7 Windsor House
- C8 City Garden
- C9 Provident Centre



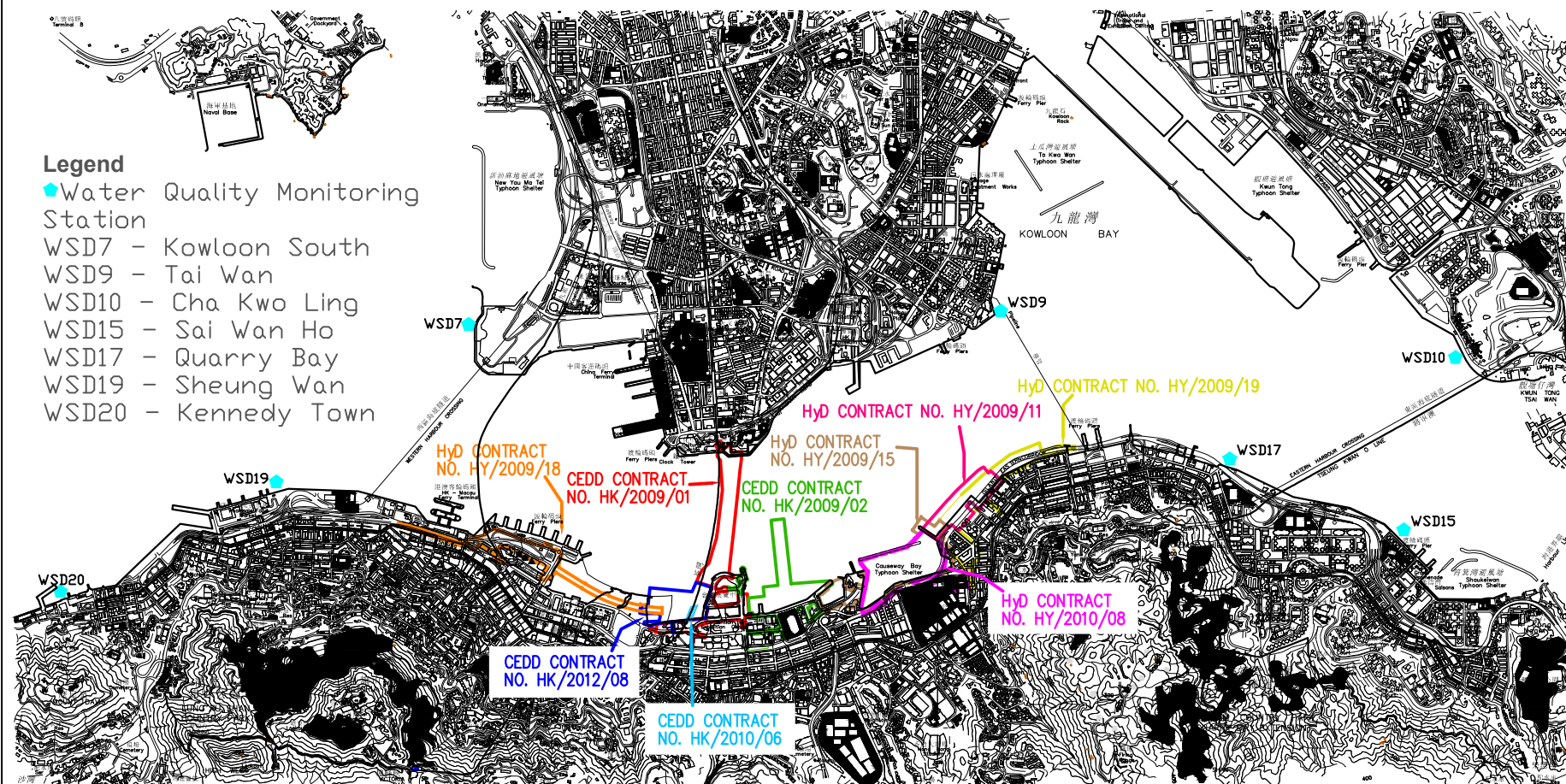
LOCATIONS OF WATER QUALITY MONITORING STATIONS

Legend

- ◆ Water Quality Monitoring Stations
- RW21-P789 (Wanchai WSD intake/ Great Eagle Centre/ China Resources Centre/ Sun Hung Kai Centre)
- C1 Hong Kong Convention and Exhibition Centre Extension
- P1 Hong Kong Convention and Exhibition Centre Phase 1
- P3 HK Academy For Performing Art
- P4 Shui On Centre
- P5 Government buildings (Wanchai Tower/ Revenue Tower/ Immigration Tower)
- C6 Proposed Exhibition Station/ World Trade Centre
- C7 Windsor House



LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF WATER QUALITY MONITORING STATIONS

Legend

- Additional DO Monitoring Station

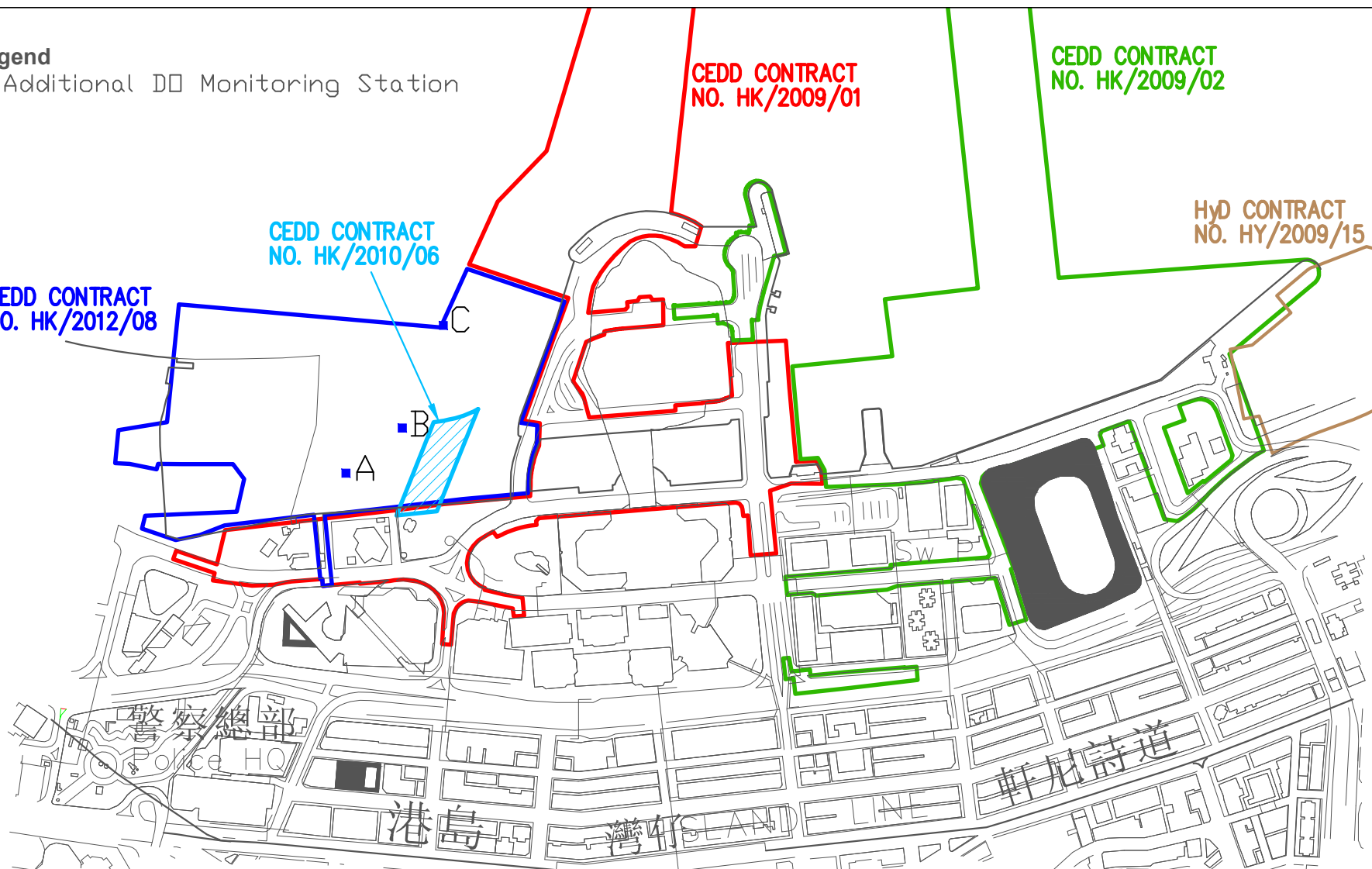
CEDD CONTRACT
NO. HK/2012/08

CEDD CONTRACT
NO. HK/2010/06

CEDD CONTRACT
NO. HK/2009/01

CEDD CONTRACT
NO. HK/2009/02

HyD CONTRACT
NO. HY/2009/15



**LOCATIONS OF ADDITIONAL DISSOLVED OXYGEN MONITORING STATIONS
FOR CULVERT L WATER DISCHARGE FLOW**



Appendix 3.1

Environmental Mitigation Implementation Schedule

Environmental Mitigation Implementation Schedule

Implementation Schedule for Air Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
S3.6.5	Four times a day watering of the work site with active operations.	Work site / during construction	Contractor		√			EIAO-TM
S3.8.1	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. <ul style="list-style-type: none">Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition;Watering during excavation and material handling;Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; andTarpaulin covering of all dusty vehicle loads transported to, from and between site locations.	Work site / during construction	Contractor		√			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.5.6	For the dredging activities carried out in the vicinity of Police Officers' Club, the dredging operation will be restricted to only 1 small close grab dredger to minimise the odour impact during the dredging activity. The dredging rate should be reduced as much as practicable for the area in close proximity to the Police Officers' Club. The sediments contain highly contaminated mud which may be disposed with the use of geosynthetic containers (details shall refer to Section 6), grab dredger has to be used for filling up the geosynthetic containers on barges. the dredging rate for the removal of the sediments at the south-west corner of the typhoon shelter shall be slowed down or restricted to specific non-popular hours in weekdays when it is necessary during construction.	Corner of CBTS/implementation of harbour-front enhancement	CEDD ¹		√			EIAO-TM
S3.8.8	Carry out dredging at the corner of CBTS to remove the sediment and clean the slime attached on the CBTS shoreline seawall	Corner of CBTS & CBTS shoreline seawall/implementation of harbour-front enhancement	CEDD ²		√			EIAO-TM
Operation Phase								
For the Whole Project								

¹ CEDD will identify an implementation agent.² CEDD will identify an implementation agent.

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.10.2	Monthly (from July to September) monitoring of odour impacts, for a period of 5 years, is proposed during the operational phase of the Project to ascertain the effectiveness of the Enhancement Package over time, and to monitor any on-going odour impacts at the ASRs.	Planned ASRs (CBTS Breakwater)/First 5-year period of operation phase	CEDD ¹			√		EIAO-TM
For DP1 – CWB (Within the Project Boundary)								
S3.6.53 – S3.6.54	The design parameters of the East and Central Ventilation Buildings as set in Tables 3.10 and 3.11	East and Central Ventilation Buildings / During operation of the Trunk Road	HyD			√		
S3.10.2	Air quality monitoring for the operation performance of the East Ventilation Building and associated East Vent Shaft will be conducted.	East Vent Shaft / During operation of the East Ventilation Building and associated East Vent Shaft	HyD			√		EIAO-TM

- Des - Design, C - Construction, O – Operation, and Dec – Decommissioning

Appendix 3.1

Table A13.2 Implementation Schedule for Noise Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.9.4	Good Site Practice: <ul style="list-style-type: none"> Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program. Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program. Mobile plant, if any, shall be sited as far away from NSRs as possible. Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum. Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities. 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP1 – CWB (Within the Project Boundary)								

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.3 – S4.8.5	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: <ul style="list-style-type: none"> Slip road 8 tunnel Construction of diaphragm wall and substructures of the tunnel approach ramp Excavation Construction of slabs Backfill Demolition and construction of substructures for the IEC Demolition works of existing piers and crossheads of the marine section of the existing IEC Use of PME grouping for the following tasks: <ul style="list-style-type: none"> At-grade road construction Substructure for IECL connection 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP2 – WDI Major Roads (Road P2)								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: <ul style="list-style-type: none"> Temporary road diversion Resurfacing At-grade roadwork 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP3 – Reclamation Works								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following task: <ul style="list-style-type: none"> Filling behind seawall Seawall construction 	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For DP5 – Wan Chai East Sewage Outfall								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: <ul style="list-style-type: none">Submarine pipelines (marine section) Use of quiet powered mechanical equipment and movable noise barrier for the following tasks: <ul style="list-style-type: none">Installation of a new pipeline (land section)	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: <ul style="list-style-type: none">Submarine pipelines (marine section)	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Operation Phase								
For DP1 – CWB (Within the Project Boundary)								

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.14 – S4.8.18	<ul style="list-style-type: none"> For Existing NSRs about 235m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC about 230m length of noise semi-enclosure with transparent panel covering the main carriageways (eastbound and westbound) of the CWB and IEC about 135m length of 5.5m high cantilevered noise barrier with 3m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 95m length of 5.5m high cantilevered noise barrier with 1m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 350m length of 3.5m high vertical noise barrier with transparent panel on the eastbound slip road to the IEC low noise road surfacing for the trunk road (except tunnel section and beneath the landscaped deck at the eastern portal area) with speed limit of 70 km/hour <p>For Future/Planned NSRs</p> <ul style="list-style-type: none"> about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC 	Near North Point / Before commencement of operation of road project	HyD	√	√	√		EIAO-TM
		In between the Electric Centre (next to City Garden) and CDA(1) site / Before occupation of Planned NSRs in CDA and CDA(1) sites.	HyD	√	√ [#]			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> The openable windows of the temple, if any, should be orientated so as to avoid direct line of sight to the existing Victoria Park Road as far as practicable. 	Near Causeway Bay Fire Station / During detailed design of the re-provisioned Tin Hau Temple	Project Proponent for the re-provisioned Tin Hau Temple	√				

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

[#] Only the steel frame for this section of noise semi-enclosure would be erected in advance during the construction of the westbound slip road.

Appendix 3.1

Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For DP3 – Reclamation Works, DP5 (Wan Chai East Sewage Outfall), DP6 (Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui), DP1 – CWB (within the Project Boundary)								
S5.8	A phased reclamation approach is planned for the WDII. Containment of fill within each of the reclamation phases by seawalls is proposed, with the seawall constructed first (above high water mark) with filling carried out behind the completed seawalls. Any gaps that may need to be provided for marine access will be shielded by silt curtains to control sediment plume dispersion away from the site. Filling for seawall construction should be carried out behind the silt curtain	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	Dredging shall be carried out by closed grab dredger for the following works: <ul style="list-style-type: none">Seawall construction in all the reclamation areas;Construction of the CWB TunnelConstruction of the proposed WSD water mains; andConstruction of the proposed Wan Chai East sewage outfall pipelines.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Dredging for the Wan Chai East sewage outfall pipelines shall not be carried out concurrently with the following activities: <ul style="list-style-type: none">Dredging along the proposed cross-harbour water mains;Dredging along the seawall in the Wan Chai Reclamation (WCR) zone (area between HKCEC Extension and PCWA).	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines																															
				Des	C	O	Dec																																
S5.8	The water body behind the temporary reclamations within the Causeway Bay typhoon shelter shall not be fully enclosed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																															
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between CR11 and HKCEC1, an impermeable barrier, suspended from a floating boom on the water surface and extending down to the seabed, will be erected by the contractor before the HKCEC1 commences. The barrier will channel the stormwater discharge flows from Culvert L to the outside of the embayment. The contractor will maintain this barrier until the reclamation works in HKCEC2W are carried out and the new Culvert L extension is constructed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																															
S5.8, Figure 5.3	<p>The total dredging rates in each of the marine works zones shall not be more than the maximum production rates stated in the table below. These are the production rates without considering the effect of silt curtain.</p> <table><tr><th colspan="2" rowspan="2">Reclamation Area</th><th colspan="2">Maximum Dredging Rate</th><th rowspan="2">Maximum Dredging Rate (m³ per week)</th></tr><tr><th>m³ per day</th><th>m³ per hour (for 16 hrs per day)</th></tr><tr><td colspan="5">Dredging along seawall or breakwater</td></tr><tr><td colspan="2">North Point Shoreline Zone (NPR)</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td>Causeway Bay Shoreline Zone</td><td>TBW</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td></td><td>TCBR</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td colspan="2">PCWA Zone</td><td>5,000</td><td>313</td><td>35,000</td></tr></table>	Reclamation Area		Maximum Dredging Rate		Maximum Dredging Rate (m³ per week)	m³ per day	m³ per hour (for 16 hrs per day)	Dredging along seawall or breakwater					North Point Shoreline Zone (NPR)		6,000	375	42,000	Causeway Bay Shoreline Zone	TBW	1,500	94	10,500		TCBR	6,000	375	42,000	PCWA Zone		5,000	313	35,000	Work site / During the construction period	Contractor		√		EIAO-TM, WPCO
Reclamation Area				Maximum Dredging Rate			Maximum Dredging Rate (m³ per week)																																
		m³ per day	m³ per hour (for 16 hrs per day)																																				
Dredging along seawall or breakwater																																							
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Causeway Bay Shoreline Zone	TBW	1,500	94	10,500																																			
	TCBR	6,000	375	42,000																																			
PCWA Zone		5,000	313	35,000																																			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures					Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines																							
								Des	C	O	Dec																								
	<table border="1"><tr><td colspan="2">Wan Chai Shoreline Zone (WCR)</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td rowspan="2">HKCEC Shoreline Zone (HKCEC)</td><td>HKCEC Stage 1 & 3</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td>HKCEC Stage 2</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td colspan="2">Cross Harbour Water Mains</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td colspan="2">Wan Chai East Submarine Sewage Pipeline</td><td>1,500</td><td>94</td><td>10,500</td></tr></table> <p>Note: 1,500 m³ per day shall be applied for construction of the western seawall of WCR1.</p>					Wan Chai Shoreline Zone (WCR)		6,000	375	42,000	HKCEC Shoreline Zone (HKCEC)	HKCEC Stage 1 & 3	1,500	94	10,500	HKCEC Stage 2	6,000	375	42,000	Cross Harbour Water Mains		1,500	94	10,500	Wan Chai East Submarine Sewage Pipeline		1,500	94	10,500						
Wan Chai Shoreline Zone (WCR)		6,000	375	42,000																															
HKCEC Shoreline Zone (HKCEC)	HKCEC Stage 1 & 3	1,500	94	10,500																															
	HKCEC Stage 2	6,000	375	42,000																															
Cross Harbour Water Mains		1,500	94	10,500																															
Wan Chai East Submarine Sewage Pipeline		1,500	94	10,500																															
S5.8, Figure 5.3	Dredging along the seawall at WCR1 shall be undertaken initially at 1,500m ³ per day for construction of the western seawall (which is in close proximity of the WSD intake), followed by partial seawall construction at the western seawall (above high water mark) to protect the adjacent intakes as much as possible from further dredging activities.					Work site / During the construction period	Contractor		√		EIAO-TM, WPCO																								
S5.8, Figure 5.3	For dredging within the Causeway Bay typhoon shelter, seawall shall be partially constructed to protect the nearby seawater intakes from further dredging activities. For example, at TCBRIW, the southern and eastern seawalls shall be constructed first (above high water mark) so that the seawater intakes at the inner water would be protected from the impacts from the remaining dredging activities along the northern boundary.					Work site / During the construction period	Contractor		√		EIAO-TM, WPCO																								
S5.8, Figure 5.3	Silt curtains shall be deployed around the closed grab dredgers during seawall dredging and seawall trench filling in the areas of HKCEC, WCR, TCBR and NP.					Work site / During the construction period	Contractor		√		EIAO-TM, WPCO																								
S5.8, Figure 5.3	Silt screens shall be applied to seawater intakes at interim construction stages as stated below: <table border="1"><tr><th>Interim Construction Stage</th><th>Location of Applications</th></tr><tr><td>Scenario 2A in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA.</td><td>WSD saltwater intakes at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South Cooling water intakes for Hong Kong Convention and Exhibition Centre Extension, Hong Kong</td></tr></table>					Interim Construction Stage	Location of Applications	Scenario 2A in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA.	WSD saltwater intakes at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South Cooling water intakes for Hong Kong Convention and Exhibition Centre Extension, Hong Kong	Work site / During the construction period	Contractor		√		EIAO-TM, WPCO																				
Interim Construction Stage	Location of Applications																																		
Scenario 2A in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA.	WSD saltwater intakes at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South Cooling water intakes for Hong Kong Convention and Exhibition Centre Extension, Hong Kong																																		

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
					Des	C	O	Dec	
	TBW, NP and Water Mains Zone	Convention and Exhibition Centre Phase I, Telecom House / HK Academy for Performing Arts / Shun On Centre, Wan Chai Tower / Revenue Tower / Immigration Tower and Sun Hung Kai Centre							
	Scenario 2B in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.	WSD saltwater intakes at Sheung Wan, Wan Chai Cooling water intakes for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.							
	Scenario 2C in 2011 with concurrent dredging activities at HKCEC and TCBR.	WSD saltwater intakes at Sheung Wan and Reprovisioned WSD Wan Chai saltwater intake. Cooling water intakes for MTR South, Excelsior Hotel & World Trade Centre and reprovisioned Windsor House.							
S5.8	Other mitigation measures include: <ul style="list-style-type: none">mechanical grabs, if used, shall be designed and maintained to avoid spillage and sealed tightly while being lifted. For dredging of any contaminated mud, closed watertight grabs must be used;all vessels shall be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash;all hopper barges and dredgers shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material;construction activities shall not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds;loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water. Barges or hoppers shall not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; and		Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain. 							
S5.8	Silt screens are recommended to be deployed at the seawater intakes during the reclamation works period. Installation of silt screens at the seawater intake points may cause a potential for accumulation and trapping of pollutants, floating debris and refuse behind the silt screens and may lead to potential water quality deterioration at the seawater intake points. Major sources of pollutants and floating refuse include the runoff and storm water discharges from the nearby coastal areas. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the impact monitoring results are representative, regular maintenance of the silt screens and refuse collection shall be performed at the monitoring stations at regular intervals on a daily basis. The Contractor shall be responsible for keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	Dredging of contaminated mud is recommended as a mitigation measures for control of operational odour impact from the Causeway Bay typhoon shelter. In recognition of the potential impacts caused by dredging activities close to the seawater intakes, only 1 small close grab dredger shall be operated within the typhoon shelter (for the dredging to mitigate odour impact) at any time to minimize the potential impact. Double silt curtains shall be deployed to fully enclose the closed grab dredger during the dredging operation. In addition, an impermeable barrier, suspended from a floating boom on the water surface and extended down to the seabed, shall be erected to isolate the adjacent intakes as much as possible from dredging activities. For example, if dredging is to be carried out at the southwest corner of the typhoon shelter, physical barriers shall be erected to west of the cooling water intake for Excelsior Hotel so that the intake would be shielded from most of the SS generated from the dredging operation to the west of the intake. For area in close proximity of the cooling water intake point, the dredging rate shall be reduced as much as practicable. Site audit and water quality monitoring shall be carried out at the seawater intakes during the dredging operations. Daily monitoring of SS at the cooling water intake shall be carried out, and 24 hour monitoring of turbidity at the intakes shall be implemented during the dredging activities. If the monitoring results indicate that the dredging operation has caused significant changes in water quality conditions at the seawater intakes, appropriate actions shall be taken to stop the dredging and mitigation measures such as slowing down the dredging rate shall be implemented.	Causeway Bay typhoon shelter/Implementation of harbour-front enhancement.	CEDD ³		√			WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For the Whole Project								
S5.8	<ul style="list-style-type: none">Construction Runoff and Drainageuse of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow;Permanent drainage channels shall incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94;a sediment tank constructed from pre-formed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal;oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor shall have a bypass to prevent flushing during periods of heavy rain;precautions and actions to be taken when a rainstorm is imminent or forecast, and during or after rainstorms. Particular attention shall be paid to the control of any silty surface runoff during storm events;on-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be installed in order to minimise the sediment loading of the effluent prior to discharge;All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge shall be adequately designed for the controlled release of storm flows. All sediment control measures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage shall be reinstated to its original condition when the construction work is finished or the temporary diversion is no longer	<ul style="list-style-type: none">Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

³ CEDD will identify an implementation agent.

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	required.							
	<ul style="list-style-type: none"> All fuel tanks and store areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity. 							
	<ul style="list-style-type: none"> Minimum distances of 100 m shall be maintained between the storm water discharges and the existing or planned WSD flushing water intakes during construction phase. 							
S5.8	<i>Sewage from Construction Work Force</i> Construction work force sewage discharges on site shall be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage shall be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)
S5.8	<i>Floating Debris and Refuse</i> Collection and removal of floating refuse shall be performed at regular intervals on a daily basis. The contractor shall be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Work site and adjacent water / During the construction period.	Contractor		√			WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	<p><i>Storm Water Discharges</i></p> <p>Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.</p>	Work site and adjacent water / During the design and construction period.	Contractor	√	√			WPCO
Operation Phase								
DPI – CWB (within the Project Boundary)								
S5.8	<p>For the operation of CWB, a surface water drainage system would be provided to collect road runoff. The following operation stage mitigation measures are recommended to ensure road runoff would comply with the TM under the WPCO:</p> <ul style="list-style-type: none"> The drainage from tunnel sections shall be directed through petrol interceptors to remove oil and grease before being discharged to the nearby foul water manholes. Petrol interceptors shall be regularly cleaned and maintained in good working condition. Oily contents of the petrol interceptors shall be properly handled and disposed of, in compliance with the requirements of the Waste Disposal Ordinance. Sewage arising from ancillary facilities of CWB (for examples, car park, 	CWB/During design and operational period	HyD/TD ³	√		√		WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p>control room, ventilation and administration buildings and tunnel portals) shall be connected to public sewerage system. Sufficient capacity in public sewerage shall be made available to the proposed facilities.</p> <ul style="list-style-type: none"> Road drainage shall also be provided with adequately designed silt trap to minimize discharge of silty runoff. The design of the operational stage mitigation measures for CWB shall take into account the guidelines published in ProPECC PN 5/93 "Drainage Plans subject to Comment by the EPD." All operational discharges from the CWB into drainage or sewerage systems are required to be licensed by EPD under the WPCO. 							

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

³ if employ Management, Operation and Maintenance (MOM) Contract

Appendix 3.1

Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For DP3 – Reclamation Works								
S6.7.2	<p>Marine Sediments</p> <p>The dredged marine sediments would be loaded onto barges, transported to and disposed of at the designated disposal sites at South of Cheung Chau, East of Ninepin, East of Tung Lung Chau, South of Tsing Yi or East of Sha Chau to be allocated by the MFC depending on their level of contamination or at other disposal sites after consultation with the MFC and EPD. In accordance with the ETWB TCW No. 34/2002, the contaminated material must be dredged and transported with great care. The mitigation measures recommended in Section 5 of the EIA Report shall be incorporated. The dredged contaminated sediment must be effectively isolated from the environment upon final disposal and shall be disposed of at the Type 2 confined marine disposal contaminated mud pit.</p>	Work site / During the construction period	Contractor		√			ETWB TCW No. 34/2002
S6.7.3	Based on the biological screening results, the Category H (>10xLCEL) sediment which failed the biological testing would require Type 3 special disposal. The volume of Category H sediment from the Causeway Bay typhoon shelter which would require special disposal arrangements is estimated to be approximately 0.05 Mm ³ . A feasible containment method is proposed whereby the dredged sediments are sealed in geosynthetic containers and, at the disposal site, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping, thereby meeting the requirements for fully confined mud disposal.							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.5	It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, at least 3 months prior to the dredging contract being tendered							
S6.7.6	<p>During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality:</p> <ul style="list-style-type: none"> Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved. 							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. 							
S6.6.12	<p>Floating Refuse</p> <p>During the construction phase, the project proponent's contractor will be responsible for the collection of any refuse within their works area. Floating booms will be provided on the water surface to confine the refuse from the working barges as well as to avoid the accumulation of pollutants within temporary embayment as mentioned in Table 13.3.</p>	Work site / During the construction period	Contractor		√			
For the Whole Project								

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.7	<p>Good Site Practices</p> <p>Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; training of site personnel in proper waste management and chemical waste handling procedures; provision of sufficient waste disposal points and regular collection for disposal; appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites). 	Work site / During the construction period	Contractor		√			Waste Disposal Ordinance (Cap.354)

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.8	<p><i>Waste Reduction Measures</i></p> <p>Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; to encourage collection of aluminium cans, PET bottles and paper, separate labelled bins shall be provided to segregate these wastes from other general refuse generated by the work force; any unused chemicals or those with remaining functional capacity shall be recycled; use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&D material. prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; proper storage and site practices to minimise the potential for damage or contamination of construction materials; and plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	Work site / During planning and design stage, and construction stage	Contractor	√	√			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.10	<p><i>General Refuse</i></p> <p>General refuse shall be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D material.</p> <p>A collection area shall be provided where wastes can be stored and loaded prior to removal from site. An enclosed and covered area is recommended to reduce the occurrence of 'wind blow' light material.</p>	Work site / During the construction period	Contractor		√			Public Health and Municipal Services Ordinance (Cap. 132)
S6.7.11	<p><i>Chemical Wastes</i></p> <p>After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals shall be collected by a licensed collector for disposal at the CWTF or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p>	Work site / During the construction period	Contractor		√			Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
S6.7.12	<p><i>Construction and Demolition Material</i></p> <p>C&D material shall be sorted on-site into inert C&D material (that is, public fill) and C&D waste. All the suitable inert C&D material shall be broken down to 250 mm in size for reuse as public fill in the WDII reclamation. C&D waste, such as wood, glass, plastic, steel and other metals shall be reused or recycled and, as a last resort, disposed of to landfill. A suitable area shall be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials.</p>	Work site / During the construction period	Contractor		√			ETWB TCW No. 33/2002, 31/2004, 19/2005

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.13	In order to monitor the disposal of public fill and C&D waste at public filling facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker		√			ETWB TCW No. 31/2004
S6.7.14	<p><i>Bentonite Slurry</i></p> <p>The disposal of residual used bentonite slurry shall follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage" and listed as follows:</p> <ul style="list-style-type: none"> If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis. If the used bentonite slurry is intended to be disposed of through the public drainage system, it shall be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the Technical Memorandum of Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters. If the used bentonite slurry is intended to be disposed to public fill reception facilities, it will be mixed with dry soil on site before disposal. 	Work site / During the construction period	Contractor		√			ProPECC PN 1/94

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Appendix 3.1

Table A13.5 Implementation Schedule for Land Contamination

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
S.12.6	<ul style="list-style-type: none">The contaminated site shall be cleaned up before commencement of site clearance and construction work at the concerned area which may disturb the ground.	A King Marine / Before commencement of construction activities at A King Marine.	Project proponent for the re-provisioned Tin Hau Temple	√				“Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops” published by EPD, HKSAR EPD ProPECC Note No. 3/94
S7.10	<p>During soil remediation works, the Contractor for the excavation works shall take note of the following points for excavation:</p> <ul style="list-style-type: none">Excavation profiles must be properly designed and executed;In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means;Quantities of soil to be excavated must be estimated;It maybe necessary to split quantities of soil according to soil type, degree and nature of contamination.Temporary storage of soil at intermediate depot or on-site	A King Marine / During soil remediation works	Contractor	√				Air Pollution Control Ordinance Noise Control Ordinance Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	maybe required. The storage site shall include protection facilities for leaching into the ground. eg. Liner maybe required.							
	<ul style="list-style-type: none"> Supply of suitable clean backfill materials is needed after excavation. Care must be taken of existing buildings and utilities. Precautions must be taken to control of ground settlement Speed controls for vehicles shall be imposed on dusty site areas. Vehicle wheel and body washing facilities at the site's exit points shall be established and used. <p>The following environmental mitigation measures shall be strictly followed during the operation and/or maintenance of the CS/S facilities:</p>							Water Pollution Control Ordinance

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<u>Air Quality Mitigation Measures</u> <ul style="list-style-type: none"> The loading, unloading, handling, transfer or storage of cement shall be carried out in an enclosed system. The loading, unloading, handling, transfer or storage of other materials which may generate airborne dust emissions such as untreated soil and oversize materials sorted out from the screening plant and stabilized soil stockpiled in the designated handling area, shall be carried out in such a manner to prevent or minimise dust emissions. These materials shall be adequately wetted prior to and during the loading, unloading and handling operations. All practicable measures, including speed controls for vehicles, shall be taken to prevent or minimize the dust emission caused by vehicle movement. Tarpaulin or low permeable sheet shall be put on dusty vehicle loads transported between site locations. 							
	<u>Noise Mitigation Measures</u> <ul style="list-style-type: none"> The mixing facilities shall be sited as far as practicable to the nearby noise sensitive receivers. Simultaneous operation of mixing facilities and other equipment shall be avoided. Mixing process and other associated material handling activities shall be properly scheduled to minimise potential cumulative noise impact on the nearby noise sensitive receivers. Construction Noise Permit shall be applied for the operation of powered mechanical equipment during restricted hours (if any). 							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p><u>Water Quality Mitigation Measures</u></p> <ul style="list-style-type: none"> Stockpile of untreated soil shall be covered as far as practicable to prevent the contaminated material from leaching out. The leachate shall be discharged following the requirements of WPCO. <p><u>Waste Mitigation Measures</u></p> <ul style="list-style-type: none"> Treated oversize materials will be used as filling material for backfilling within the site. Sorted materials of size smaller than 5 cm will be collected and transferred to the mixing plant for further decontamination treatment. Stabilized soils shall be broken into suitable size for backfilling or reuse on site. A high standard of housekeeping shall be maintained within the mixing plant area. If necessary, there shall be clear and separated areas for stockpiling of untreated and treated materials. 							

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Appendix 3.1

Table A13.6 Implementation Schedule for Marine Ecology

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project - Schedule 3 DP								
S.9.7.2	Alternative design of the Trunk Road constructed in tunnel shall be adopted to avoid permanent reclamation in CBTS and ex-PWCA Basin.	-	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
For DP3 – Reclamation Works								
S.9.7.3	Translocation of those potentially affected coral colonies to the nearby suitable habitats such as Junk Bay is recommended. A detailed translocation plan (including translocation methodology, monitoring of transplanted corals, etc.) should be drafted and approval by AFCD during the detailed design stage of the Project.	Ex-PCWA Basin and along seawall next to a public pier which is about 250 m away from the CBTS	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.4	<p>During dredging and filling operations, a number of mitigation measures to control water quality shall be adopted to confine sediment plume within reclamation area and protect marine fauna in proximity to the reclamation. The mitigation measures include the following:</p> <ul style="list-style-type: none"> • Installation of silt curtains during dredging activities • Use of tightly-closed grab dredger • Reduction of dredging rate • Control of grab descending speed • Construction of leading edges of seawall in the early stages of the reclamation works 	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
	<ul style="list-style-type: none"> • Adoption of multiple-phase construction schedule 							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.6	<p>To minimize potential disturbance impacts on the foraging ardeid population in the CBTS, particularly in the area near the A King Shipyard, appropriate mitigation measures shall be adopted particularly during the construction phase. The following measures are recommended:</p> <ul style="list-style-type: none"> • Use of Quiet Mechanical Plant during the construction phase shall be adopted wherever possible. • Adoption of multiple-phase construction schedule. • General measures to reduce noise generated during the construction phase (see noise impact assessment) shall be effectively implemented. 	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.7	Seawalls shall be constructed in advance around the reclamation areas within the area of the CBTS to screen adjacent feeding ground from construction phase activities, reduce noise disturbance to the associated seabirds and also to restrict access to this habitat adjacent to works areas by ship traffic.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.8	Loss of artificial seawall habitats shall be reinstated by the construction of about 1 km vertical wave absorbing seawall along the coastlines of the new reclamation around the HKCEC and at North Point. The new seawalls are expected to provide large area of hard substrata for settlement and recruitment of intertidal fauna similar to those previously recorded from existing intertidal habitats.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

*Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Appendix 3.1

Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP1 – CWB (Within the Project Boundary)								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP2 – WDII Major Roads (Road P2)								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP3 – Reclamation Works								
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP5 – Wan Chai East Sewage Outfall								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
Operation Phase								
For the Whole Project - Schedule 3 DP								
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM2 Shrub and Climbing Plants to soften proposed structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD/	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD ⁴	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
For DP1 – CWB (Within the Project Boundary)								
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM2 Shrub and Climbing Plants to soften proposed structures	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
For DP2 – WDII Major Roads (Road P2)								

⁴ CEDD will identify an implementation agent

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
For DP3 – Reclamation Works								
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD ⁵	√	√	√		ETWB TCW 2/2004

*Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

⁵ CEDD will identify an implementation agent



Appendix 4.1

Action and Limit Level

Action and Limit Level

Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received.	75 dB(A) ^{Note 1}

Note 1:

- 70dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.
- If works are to be carried out during the restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Action and Limit Level for Air Monitoring

Monitoring Location	1-hour TSP Level in $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	Action Level	Limit Level	Action Level	Limit Level
CMA1b ^{Note 2}	320.1	500	176.7	260
CMA2a	323.4	500	169.5	260
CMA3a ^{Note 2}	311.3	500	171.0	260
CMA4a	312.5	500	171.2	260
CMA5b ^{Note 2}	332.0	500	181.0	260
CMA6a ^{Note 2}	300.1	500	187.3	260

Note 2:

- As per facing owner's rejection in allowing the implementation of long-term air quality impact monitoring at their premises, alternative monitoring stations and justification were proposed for IEC verification and EPD approval.
- The established Action and Limit Levels from the baseline air monitoring will be adopted to the alternative monitoring stations.

Action and Limit Level for Water Monitoring

Parameters	Dry Season		Wet Season	
	Action	Limit	Action	Limit
WSD Salt Water Intake				
SS in mg L^{-1}	13.00	14.43	16.26	19.74
Turbidity in NTU	8.04	9.49	10.01	11.54
DO in mg/L	3.66	3.28	3.17	2.63
Cooling Water Intake				
SS in mg L^{-1}	15.00	22.13	18.42	27.54
Turbidity in NTU	9.10	10.25	11.35	12.71
DO in mg/L	3.36	2.73	3.02	2.44

Remarks:

- Action and Limit Level for the wet season are applied after the EPD approval of Updated EM&A Manual on 29 April 2011.

Action and Limit Levels for Odour Patrol

Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	<ul style="list-style-type: none"> When two documented complaint are received; or Odour Intensity of 2 is measured from odour intensity analysis. 	<ul style="list-style-type: none"> Five or more consecutive genuine documented complaints within a week; or Odour Intensity of 3 or above is measured from odour intensity analysis.



Appendix 4.2

Copies of Calibration Certificates

**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION****Information supplied by customer:**

CONTACT: SAM LAM **WORK ORDER:** HK1510387
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 07/10/2015
DATE OF ISSUE: 14/10/2015
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1309192
Equipment No.:	---
Date of Calibration:	08/10/2015

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee
Director

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: HK1510387
DATE OF ISSUE: 14/10/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1309192
Equipment No.:	---
Date of Calibration:	08/10/2015
Date of next Calibration:	08/01/2016

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	4.14	3.5
10	9.23	-7.7
40	39.1	-2.3
100	105.0	5.0
400	405.0	1.3
1000	989	-1.1
Tolerance Limit (±%)		10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION****Information supplied by customer:**

CONTACT: SAM LAM **WORK ORDER:** HK1510384
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 07/10/2015
DATE OF ISSUE: 14/10/2015
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

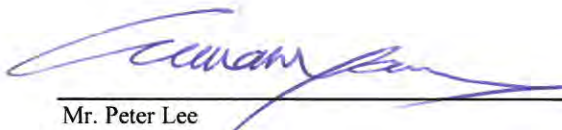
It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203015
Equipment No.:	---
Date of Calibration:	08/10/2015

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Mr. Peter Lee
Director

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: HK1510384
DATE OF ISSUE: 14/10/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203015
Equipment No.:	---
Date of Calibration:	08/10/2015
Date of next Calibration:	08/01/2016

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	4.01	0.2
10	10.1	1.0
40	38.8	-3.0
100	101.0	1.0
400	395.0	-1.3
1000	999.0	-0.1
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

This report may not be reproduced except with prior written approval from Pilot Testing Limited.

**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION****Information supplied by customer:**

CONTACT: SAM LAM **WORK ORDER:** HK1510427
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 2015-11-06
DATE OF ISSUE: 2015-11-13
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS


It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1408039
Equipment No.:	---
Date of Calibration:	06-Nov-15

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Mr. Peter Lee
Director

This report may not be reproduced except with prior written approval from Pilot Testing Limited.

**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

WORK ORDER: HK1510427
DATE OF ISSUE: 2015-11-13
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1408039
Equipment No.:	---
Date of Calibration:	06-Nov-15
Date of next Calibration:	06-Feb-16

Parameters:**Turbidity**

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	4.12	3.0
10	9.87	-1.3
40	39.5	-1.3
100	104.0	4.0
400	402	0.5
1000	994	-0.6
	Tolerance Limit ($\pm\%$)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

This report may not be reproduced except with prior written approval from Pilot Testing Limited.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510392
Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT
Date of Issue : 2015-10-22


Customer : LAM GEOTECHNICS LIMITED
Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1510392
Test Item No. : HK1510392-01
Test Item Details
Test Item Description : Multifunctional Meter
Manufacturer : YSI
Model No. : Professional Plus
Serial No. : 14E100105
Performance Method : Checked according to in-house method CAL005
 (References: Temperature (Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value (APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B) , Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date : 14-Oct-15
Test Item Calibration Date : 15-Oct-15
Test Period : 14/10/2015 - 22/10/2015

- Notes :
1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Results relate to item(s) as received.
 3. \pm indicates the tolerance limit
 4. N/A = Not applicable
 5. APHA - American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
 7. Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory


 Mr. Peter Lee
 (Director)

Issue Date:

2015-10-22



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK1510392
 DATE OF ISSUE: 2015-10-22
 CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter
Manufacturer	YSI
Model No.	Professional Plus
Serial No.	14E100105
Date of Calibration	15-Oct-15
Date of next Calibration	15-Jan-16

Parameters:

Temperature (Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.3	10.6	+0.3
19.7	19.4	-0.3
31.5	30.1	-1.4
	Tolerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	4.06	4.02	-0.04
7.0	6.96	7.06	+0.10
10.0	9.91	10.04	+0.13
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	--
0.1000	12.89	12.75	-1.09
0.2000	24.80	24.40	-1.61
0.5000	58.67	58.14	-0.90
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.62	8.71	+0.09
4.39	4.31	-0.08
2.05	2.11	+0.06
	Tolerance Limit	±0.20

Remarks: (1) Maxium tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
 (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
 (3) Because of high sensitivity and ease of measurement, the conductivity method (accorindg to APHA 19e 2510) is used to determine salinity.

- End of Report -



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No.	: HK1510386
Project Name	: EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT
Date of Issue	: 19/10/2015
Customer	: LAM GEOTECHNICS LIMITED
Address	: 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG
Calibration Job No.	: HK1510386
Test Item No.	: HK1510386-01
Test Item Details	
Test Item Description	: Multifunctional Meter
Manufacturer	: YSI
Model No.	: Professional Plus
Serial No.	: 14M100277
Performance Method	: Checked according to in-house method CAL005 (References: Temperature (Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value (APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B) , Dissolved oxygen (APHA 19e 4500-O,C))
Test Item Receipt Date	: 14-Oct-15
Test Item Calibration Date	: 16-Oct-15
Test Period	: 14/10/2015 - 19/10/2015

- Notes :
1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Results relate to item(s) as received.
 3. \pm indicates the tolerance limit
 4. N/A = Not applicable
 5. APHA - American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
 7. Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Mr. Peter Lee
(Director)

Issue Date:

19/10/2015

Pilot Testing Limited

Address: Room B12, Block B, 5/F, Tonic Industrial Centre, 19 Lam Hing Street, Kowloon Bay, Kowloon
Tel: (852) 2527 6691 email: test@pilot-testing.com



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK1510386
DATE OF ISSUE: 19/10/2015
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter
Manufacturer	YSI
Model No.	Professional Plus
Serial No.	14M100277
Date of Calibration	16-Oct-15
Date of next Calibration	16-Jan-16

Parameters:

Temperature (Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.2	10.9	+0.7
19.5	20.2	+0.7
30.4	30.5	+0.1
Tolerance Limit		±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.91	3.98	+0.07
7.0	6.81	6.85	+0.04
10.0	9.73	9.79	+0.06
Tolerance Limit			±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	--
0.1000	12.89	12.75	-1.12
0.2000	24.80	25.06	+1.05
0.5000	58.67	57.69	-1.67
Tolerance Limit			±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.71	8.63	-0.08
4.76	4.83	+0.07
0.54	0.56	+0.02
Tolerance Limit		±0.20

- Remarks:
- (1) Maximum tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
 - (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
 - (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

- End of Report -



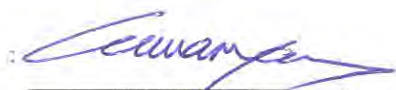
EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1510391
 Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT
 Date of Issue : 2015-10-22
 Customer : LAM GEOTECHNICS LIMITED
 Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1510391
 Test Item No. : HK1510391-01
 Test Item Details :
 Test Item Description : Multifunctional Meter
 Manufacturer : YSI
 Model No. : Professional Plus
 Serial No. : 11F100420
 Performance Method : Checked according to in-house method CAL005
 (References: Temperature (Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value (APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B) , Dissolved oxygen (APHA 19e 4500-O,C))
 Test Item Receipt Date : 14-Oct-15
 Test Item Calibration Date : 15-Oct-15
 Test Period : 14/10/2015 - 22/10/2015

- Notes :
1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 2. Results relate to item(s) as received.
 3. \pm indicates the tolerance limit
 4. N/A = Not applicable
 5. APHA - American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
 7. Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory


 Mr. Peter Lee
 (Director)

Issue Date:

2015-10-22

Pilot Testing Limited

Address: Room B12, Block B, 5/F, Tonic Industrial Centre, 19 Lam Hing Street, Kowloon Bay, Kowloon
 Tel: (852) 2527 6691 email: test@pilot-testing.com



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK1510391
 DATE OF ISSUE: 2015-10-22
 CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter
Manufacturer	YSI
Model No.	Professional Plus
Serial No.	11F100420
Date of Calibration	15-Oct-15
Date of next Calibration	15-Jan-16

Parameters:

Temperature (Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.5	10.6	+0.1
19.5	20.1	+0.6
31.8	31.8	0.0
	Tolerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.90	4.09	+0.19
7.0	6.96	7.04	+0.08
10.0	9.87	9.9	+0.03
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	--
0.1000	12.89	12.88	-0.08
0.2000	24.80	24.43	-1.49
0.5000	58.67	57.80	-1.48
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading of DO probe (mg/L)	Deviation (mg/L)
8.05	7.92	-0.13
4.39	4.28	-0.11
2.26	2.22	-0.04
	Tolerance Limit	±0.20

- Remarks:
- (1) Maximum tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
 - (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
 - (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

- End of Report -



CERTIFICATE OF CALIBRATION

Certificate No.: 15CA1203 04-01

Page 1 of 2

Item tested

Description:	Sound Level Meter (Type 1)	Microphone
Manufacturer:	B & K	B & K
Type/Model No.:	2236	4188
Serial/Equipment No.:	2100736	2288941
Adaptors used:	-	-

Item submitted by

Customer Name: Lam Geotechnics Limited
Address of Customer: -
Request No.: -
Date of receipt: 03-Dec-2015

Date of test: 04-Dec-2015

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	19-Jun-2016	CIGISMEC
Signal generator	DS 360	33873	16-Apr-2016	CEPREI
Signal generator	DS 360	61227	16-Apr-2016	CEPREI

Ambient conditions

Temperature: 22 ± 1 °C
Relative humidity: 50 ± 10 %
Air pressure: 1010 ± 10 hPa

Test specifications

- 1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
- 2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of $\pm 20\%$.
- 3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responses of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory:


Huang Jian Min / Feng Jun Qi

Date: 05-Dec-2015

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 15CA1203 04-01

Page 2 of 2

1. Electrical Tests

The electrical tests were performed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	2.1
	C	Pass	1.0	
	Lin	Pass	2.0	
Linearity range for Leq	At reference range, Step 5 dB at 4 kHz	Pass	0.3	2.2
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
		Pass	0.3	
Linearity range for SPL	At reference range, Step 5 dB at 4 kHz	Pass	0.3	0.3
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	0.3
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100µs rectangular pulse	Pass	0.3	0.3
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	0.3
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor 1/10 ³ at 4kHz	Pass	0.3	0.3
	1 ms burst duty factor 1/10 ⁴ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	0.4
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	0.4
	Leq	Pass	0.4	

2. Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	0.5
	Weighting A at 8000 Hz	Pass	0.5	

3. Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

Date:

Fung Chi Yip
04-Dec-2015

- End -

Checked by:

Date:

Lam Tze Wai
05-Dec-2015

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.



CERTIFICATE OF CALIBRATION

Certificate No.: 15CA0528 04-03

Page: 1 of 2

Item tested

Description: Acoustical Calibrator (Class 1)
Manufacturer: Rion Co., Ltd.
Type/Model No.: NC-73
Serial/Equipment No.: 10465798
Adaptors used: -

Item submitted by

Customer: Lam Geotechnics Ltd.
Address of Customer: -
Request No.: -
Date of receipt: 28-May-2015

Date of test: 30-May-2015

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	15-Apr-2016	SCL
Preamplifier	B&K 2673	2239857	22-Apr-2016	CEPREI
Measuring amplifier	B&K 2610	2346941	22-Apr-2016	CEPREI
Signal generator	DS 360	61227	16-Apr-2016	CEPREI
Digital multi-meter	34401A	US36087050	17-Apr-2016	CEPREI
Audio analyzer	8903B	GB41300350	17-Apr-2016	CEPREI
Universal counter	53132A	MY40003662	16-Apr-2016	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C
Relative humidity: 60 ± 10 %
Air pressure: 1000 ± 5 hPa

Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory:

Huang Jian Min/Feng Jun Qi

Date: 01-Jun-2015

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 15CA0528 04-03

Page: 2 of 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	(Output level in dB re 20 µPa)
			Estimated Expanded Uncertainty dB
1000	94.00	94.06	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz STF = 0.002 dB

Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz Actual Frequency = 966.3 Hz

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz TND = 0.5 %

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by:

Date:

Fung Chi Yip

30-May-2015

Checked by:

Date:

Lam Tze Wai

01-Jun-2015

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Jun 30, 2015 Rootmeter S/N 0438320 Ta (K) - 296
Operator Tisch Orifice I.D. - 0005 Pa (mm) - 749.3

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER	ORFICE
					DIFF Hg (mm)	DIFF H2O (in.)
1	NA	NA	1.00	1.3930	3.2	2.00
2	NA	NA	1.00	0.9800	6.4	4.00
3	NA	NA	1.00	0.8790	7.9	5.00
4	NA	NA	1.00	0.8350	8.7	5.50
5	NA	NA	1.00	0.6900	12.7	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9883	0.7095	1.4090		0.9957	0.7148	0.8889
0.9841	1.0042	1.9926		0.9915	1.0117	1.2570
0.9820	1.1172	2.2278		0.9894	1.1256	1.4054
0.9810	1.1749	2.3365		0.9884	1.1837	1.4740
0.9757	1.4141	2.8179		0.9830	1.4247	1.7777
Qstd slope (m) = 2.00072				Qa slope (m) = 1.25282		
intercept (b) = -0.01209				intercept (b) = -0.00763		
coefficient (r) = 0.99995				coefficient (r) = 0.99995		
y axis = SQRT[H2O(Pa/760) (298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

Vstd = Diff. Vol [(Pa-Diff. Hg)/760] (298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{ [SQRT(H2O(Pa/760) (298/Ta))] - b}
Qa = 1/m{ [SQRT H2O(Ta/Pa)] - b}



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA1b

Equipment no. : EL452

Calibration Date : 30-Nov-15

Calibration Due Date : 30-Jan-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T_a	295	Kelvin	Pressure, P_a
			1019 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m_c	2.00072	Intercept, b_c	-0.01209
Last Calibration Date	30-Jun-15	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	30-Jun-16				

Calibration of TSP						
Calibration Point	Manometer Reading			Q_{std} ($m^3 / min.$) X-axis	Continuous Flow Recorder, W (CFM)	IC ($W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31$) Y-axis
	(up)	(down)	(difference)			
1	6.1	6.1	12.2	1.7656	58	58.4579
2	4.8	4.8	9.6	1.5669	52	52.4105
3	3.7	3.7	7.4	1.3764	44	44.3474
4	2.4	2.4	4.8	1.1097	36	36.2842
5	1.5	1.5	3.0	0.8786	24	24.1895

By Linear Regression of Y on X

Slope, m = 37.9882 Intercept, b = -7.7457

Correlation Coefficient* = 0.9953

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Kit Au

Date : 30-Nov-15

Checked by : Derek Lo

Date : 30-Nov-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA2a **Calibration Date** : 30-Nov-15
Equipment no. : EL449 **Calibration Due Date** : 30-Jan-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition						
Temperature, T _a	295		Kelvin	Pressure, P _a	1019 mmHg	

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	2.00072	Intercept, b _c	-0.01209
Last Calibration Date	30-Jun-15	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	30-Jun-16				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.7	6.7	13.4	1.8501	62	62.4895
2	5.3	5.3	10.6	1.6462	55	55.4342
3	4.1	4.1	8.2	1.4486	48	48.3789
4	2.7	2.7	5.4	1.1767	38	38.3000
5	1.6	1.6	3.2	0.9072	30	30.2368

By Linear Regression of Y on X

Slope, m = 34.6157 Intercept, b = -1.6936
 Correlation Coefficient* = 0.9994
 Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Kit Au **Checked by** : Derek Lo
Date : 30-Nov-15 **Date** : 30-Nov-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA3a

Equipment no. : EL333

Calibration Date : 30-Nov-15

Calibration Due Date : 30-Jan-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T_a	295	Kelvin	Pressure, P_a
			1019 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m_c	2.00072	Intercept, b_c	-0.01209
Last Calibration Date	30-Jun-15	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	30-Jun-16				

Calibration of TSP						
Calibration Point	Manometer Reading			Q_{std} ($m^3 / min.$) X-axis	Continuous Flow Recorder, W (CFM)	IC ($W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31$) Y-axis
	(up)	(down)	(difference)			
1	5.8	5.8	11.6	1.7218	56	56.4421
2	4.5	4.5	9.0	1.5173	50	50.3947
3	3.5	3.5	7.0	1.3389	44	44.3474
4	2.3	2.3	4.6	1.0865	36	36.2842
5	1.5	1.5	3.0	0.8786	28	28.2211

By Linear Regression of Y on X

Slope, m = 33.3404 Intercept, b = -0.4922

Correlation Coefficient* = 0.9990

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Kit Au

Date : 30-Nov-15

Checked by : Derek Lo

Date : 30-Nov-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA4a

Equipment no. : EL390

Calibration Date : 30-Nov-15

Calibration Due Date : 30-Jan-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T_a	295	Kelvin	Pressure, P_a
			1019 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m_c	2.00072	Intercept, b_c	-0.01209
Last Calibration Date	30-Jun-15	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	30-Jun-16				

Calibration of TSP						
Calibration Point	Manometer Reading			Q_{std} ($m^3 / min.$)	Continuous Flow Recorder, W (CFM)	IC ($W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31$)
	(up)	(down)	(difference)			
1	6.4	6.4	12.8	1.8084	58	58.4579
2	5.1	5.1	10.2	1.6149	52	52.4105
3	3.9	3.9	7.8	1.4130	46	46.3632
4	2.6	2.6	5.2	1.1548	34	34.2684
5	1.6	1.6	3.2	0.9072	24	24.1895
By Linear Regression of Y on X Slope, m = 38.5259 Intercept, b = -10.0149 Correlation Coefficient* = 0.9962 Calibration Accepted = Yes/No**						

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Kit Au

Date : 30-Nov-15

Checked by : Derek Lo

Date : 30-Nov-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA5b

Equipment no. : EL222

Calibration Date : 30-Nov-15

Calibration Due Date : 30-Jan-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	295	Kelvin	Pressure, P _a
			1019 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	2.00072	Intercept, b _c	-0.01209
Last Calibration Date	30-Jun-15	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	30-Jun-16				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std}	Continuous Flow	IC
	H (inches of water)			(m ³ / min.)	Recorder, W	(W(P _a /1013.3x298/T _a) ^{1/2} /35.31
	(up)	(down)	(difference)	X-axis	(CFM)	Y-axis
1	5.2	5.2	10.4	1.6306	62	62.4895
2	4.3	4.3	8.6	1.4834	58	58.4579
3	3.3	3.3	6.6	1.3002	53	53.4184
4	2.0	2.0	4.0	1.0136	46	46.3632
5	1.3	1.3	2.6	0.8183	38	38.3000

By Linear Regression of Y on X

Slope, m = 28.8602 Intercept, b = 15.7526

Correlation Coefficient* = 0.9958

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Kit Au

Date : 30-Nov-15

Checked by : Derek Lo

Date : 30-Nov-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA6a

Equipment no. : EL448

Calibration Date : 30-Nov-15

Calibration Due Date : 30-Jan-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition						
Temperature, T _a	295		Kelvin	Pressure, P _a	1019 mmHg	

Orifice Transfer Standard Information						
Equipment No.	EL086		Slope, m _c	2.00072	Intercept, b _c	-0.01209
Last Calibration Date	30-Jun-15		$\left(\frac{H \times P_a}{1013.3 \times 298 / T_a} \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	30-Jun-16					

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.6	6.6	13.2	1.8363	60	60.4737
2	5.3	5.3	10.6	1.6462	54	54.4263
3	4.5	4.5	9.0	1.5173	50	50.3947
4	2.6	2.6	5.2	1.1548	40	40.3158
5	1.5	1.5	3.0	0.8786	30	30.2368

By Linear Regression of Y on X

Slope, m = 30.9785 Intercept, b = 3.5936

Correlation Coefficient* = 0.9989

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Kit Au

Date : 30-Nov-15

Checked by : Derek Lo

Date : 30-Nov-15



Appendix 5.1

Monitoring Schedules for Reporting Month and Coming Reporting Month

Contract No. HK/2011/07
Wan Chai Development Phase II and Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 2)
Environmental Monitoring Schedule
December 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29-Nov	30-Nov	1-Dec	2-Dec	3-Dec	4-Dec	5-Dec
		Noise (daytime) (M1a, M2b, M3a, M4b, M5b, M6)	24hr TSP Impact WQM Mid-ebb Mid-flood	24hr TSP (CMA5b) 1hr TSP Impact WQM Mid-ebb Mid-flood	Impact WQM Mid-ebb Mid-flood	
	Impact WQM Mid-ebb Mid-flood					
	2:57 10:10		4:23 16:00		6:07 13:50	
6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	12-Dec
		24hr TSP Noise (daytime) (M1a)	1hr TSP Impact WQM Mid-flood Mid-ebb		Noise (daytime) (M2b, M3a, M4b, M5b, M6) Impact WQM Mid-flood	Impact WQM Mid-ebb
	Impact WQM Mid-ebb Mid-flood					
	9:36 15:38		16:31 23:23		17:37	0:26
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
	24hr TSP Noise (daytime) (M2b, M3a, M4b) Impact WQM Mid-ebb Mid-flood	1hr TSP Noise (daytime) (M1a)	Noise (daytime) (M5b, M6) Impact WQM Mid-ebb Mid-flood		24hr TSP Impact WQM Mid-ebb Mid-flood	1hr TSP
	1:40 8:52		3:03 10:29		4:39 12:13	
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
	1hr TSP Noise (daytime) (M2b) Impact WQM Mid-ebb Mid-flood	Noise (daytime) (M3a, M4b, M5b, M6)	24hr TSP Noise (daytime) (M1a) Impact WQM Mid-ebb Mid-flood	1hr TSP		Impact WQM Mid-ebb Mid-flood
	8:26 14:49		10:32 16:20			0:36 7:34

**Tentative Environmental Monitoring Schedule
January 2016**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	1-Jan	2-Jan
	Noise (daytime) Impact WQM Mid-ebb 1:57 Mid-flood 9:00	24hr TSP Noise (daytime)	1hr TSP Impact WQM Mid-ebb 3:10 Mid-flood 10:22			Impact WQM Mid-ebb 4:17 Mid-flood 12:36
3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan
	24hr TSP Noise (daytime) Impact WQM Mid-flood 13:59 Mid-ebb 21:36	1hr TSP Noise (daytime)	Mid-flood 15:09 Mid-ebb 22:31		Mid-flood 16:31 Mid-ebb 23:35	24hr TSP
10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan
	1hr TSP Noise (daytime) Impact WQM Mid-ebb 0:51 Mid-flood 7:54	Noise (daytime)	Impact WQM Mid-flood 9:13 Mid-ebb 14:55		24hr TSP Impact WQM Mid-flood 10:43 Mid-ebb 16:40	1hr TSP
17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan
	1hr TSP Noise (daytime) Impact WQM Mid-flood 13:12 Mid-ebb 20:15	Noise (daytime)	Impact WQM Mid-flood 15:04 Mid-ebb 22:17	24hr TSP	1hr TSP Impact WQM Mid-flood 16:45 Mid-ebb 23:36	
24-Jan	25-Jan	26-Jan				
	Noise (daytime) Impact WQM Mid-ebb 1:03 Mid-flood 7:55	Noise (daytime)				



Appendix 5.2

Noise Monitoring Results and Graphical Presentations



Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

Location: M1a - Harbour Road Sports Centre

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
01/12/15	10:20	Cloudy	89.0	94.5	78.5	72	89	75
08/12/15	16:18	Cloudy	83.6	86.5	78.5	72	83	75
15/12/15	13:27	Fine	84.0	85.5	78.0	72	84	75
23/12/15	13:42	Fine	84.5	85.5	83.0	72	84	75

Location: M2b - Noon-day gun area

Date	Time	Measurement Noise Level				Baseline Level	Construction Noise Level	Limit Level
		Weather	Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
01/12/15	13:00	Cloudy	69.6	70.5	67.5	68	65	75
11/12/15	14:05	Fine	68.8	70.0	66.0	68	63	75
14/12/15	10:17	Fine	69.3	70.0	67.0	68	64	75
21/12/15	10:20	Fine	68.5	70.0	66.5	68	61	75

Location: M3a - Tung Lo Wan Fire Station

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
01/12/15	13:40	Cloudy	67.5	68.6	65.5	69	68	75
11/12/15	15:05	Fine	65.8	67.5	62.0	69	66	75
14/12/15	13:45	Fine	65.8	67.0	64.0	69	66	75
22/12/15	8:00	Fine	67.2	68.0	65.5	69	67	75

Location: M4b - Victoria Centre

Date	Time	Weather	Measurement Noise Level			Baseline Noise Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30min)					
01/12/15	14:15	Cloudy	67.8	69.5	65.0	67	58	75
11/12/15	15:46	Fine	71.6	75.0	64.5	67	70	75
14/12/15	14:26	Fine	70.6	72.5	66.0	67	68	75
22/12/15	8:40	Fine	68.5	70.0	67.0	67	62	75

Location: M5b - City Garden

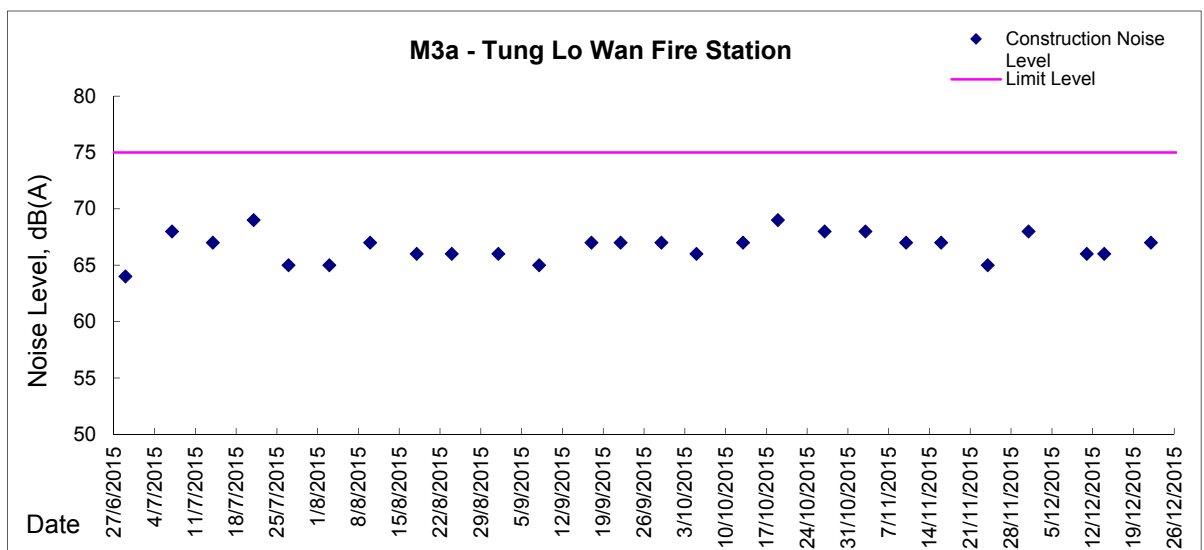
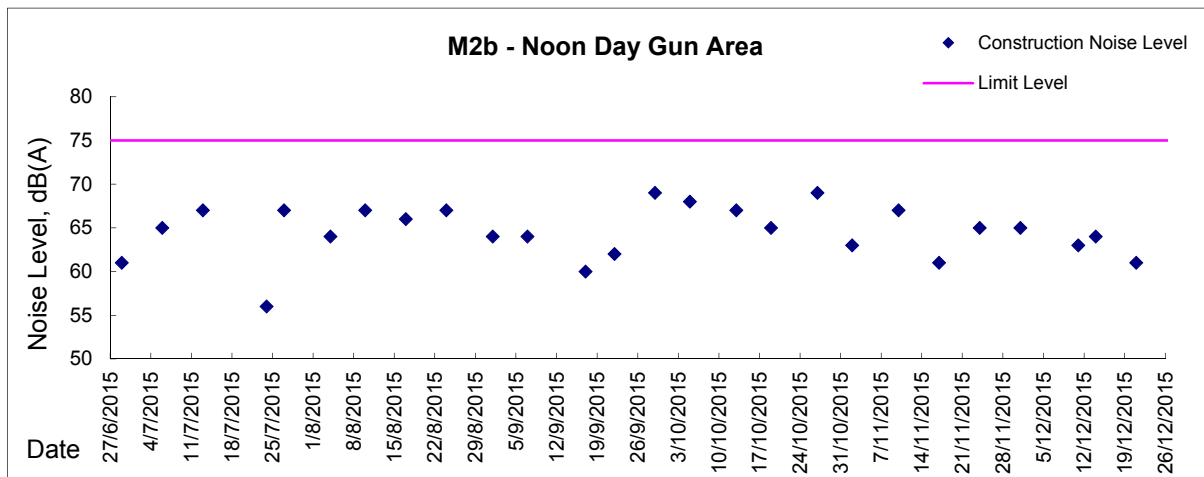
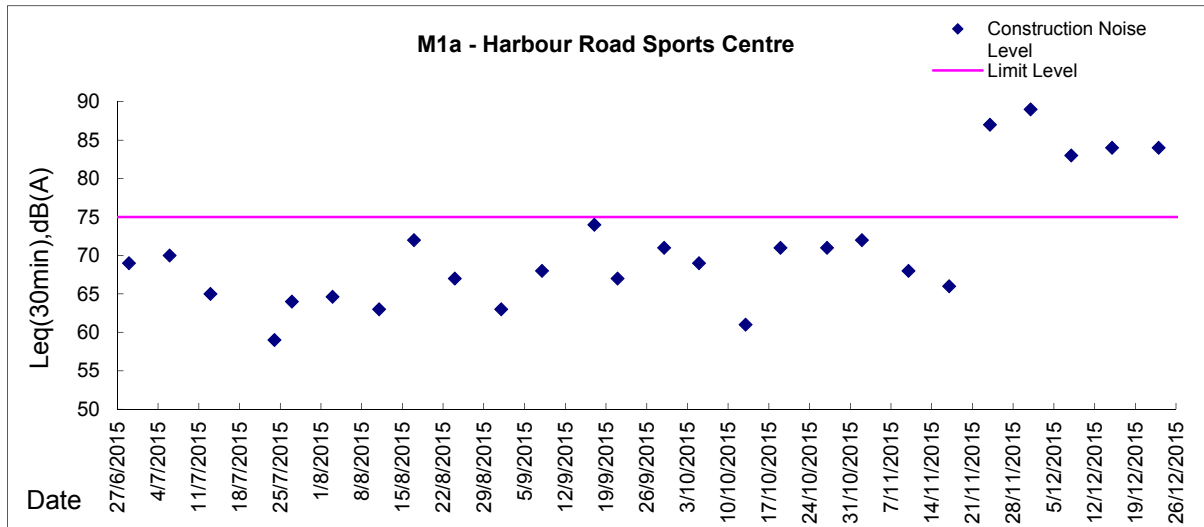
Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30min)					
01/12/15	15:00	Cloudy	69.1	70.5	67.5	68	63	75
11/12/15	9:30	Fine	68.8	71.0	63.5	68	61	75
16/12/15	9:00	Fine	69.5	71.0	67.5	68	64	75
22/12/15	9:34	Fine	64.7	66.5	62.5	68	65	75

Location: M6 - HK Baptist Church Henrietta Secondary School

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
01/12/15	15:37	Cloudy	70.9	72.0	68.0	71	57	70
11/12/15	10:05	Fine	68.4	69.5	66.5	71	68	65
16/12/15	9:40	Fine	68.5	69.5	67.0	71	69	65
22/12/15	10:16	Fine	69.1	70.0	67.0	71	69	70

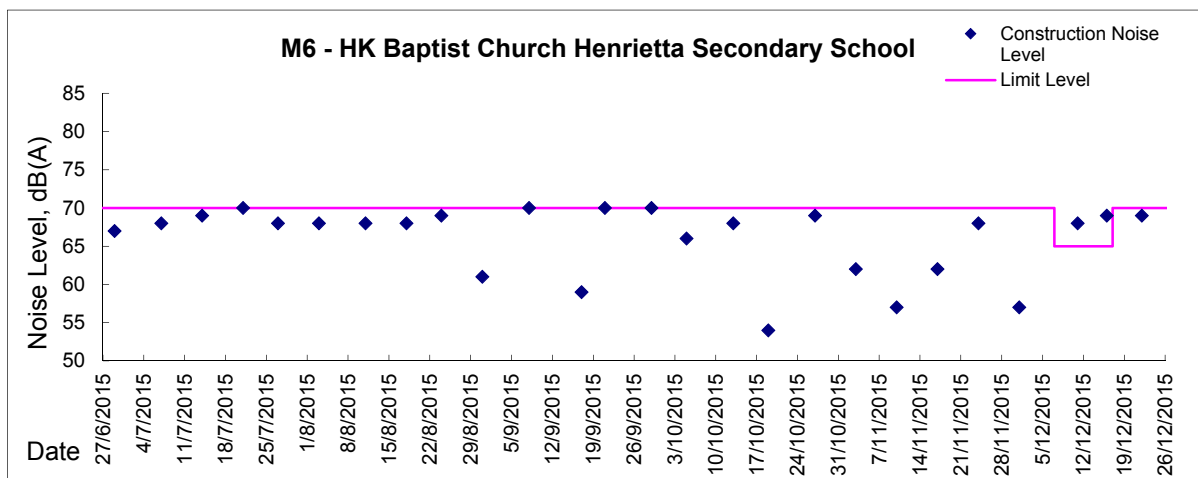
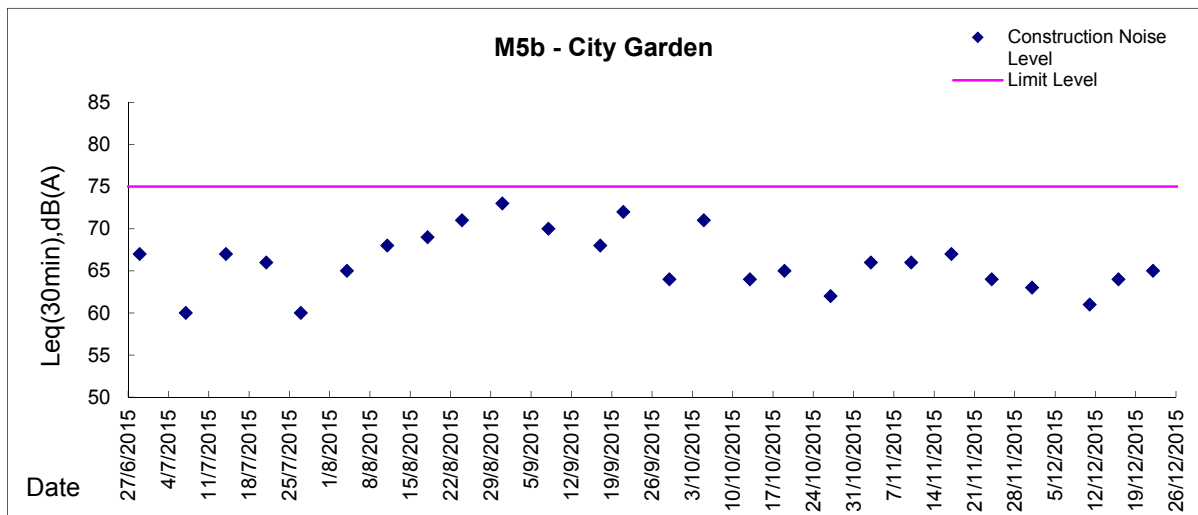
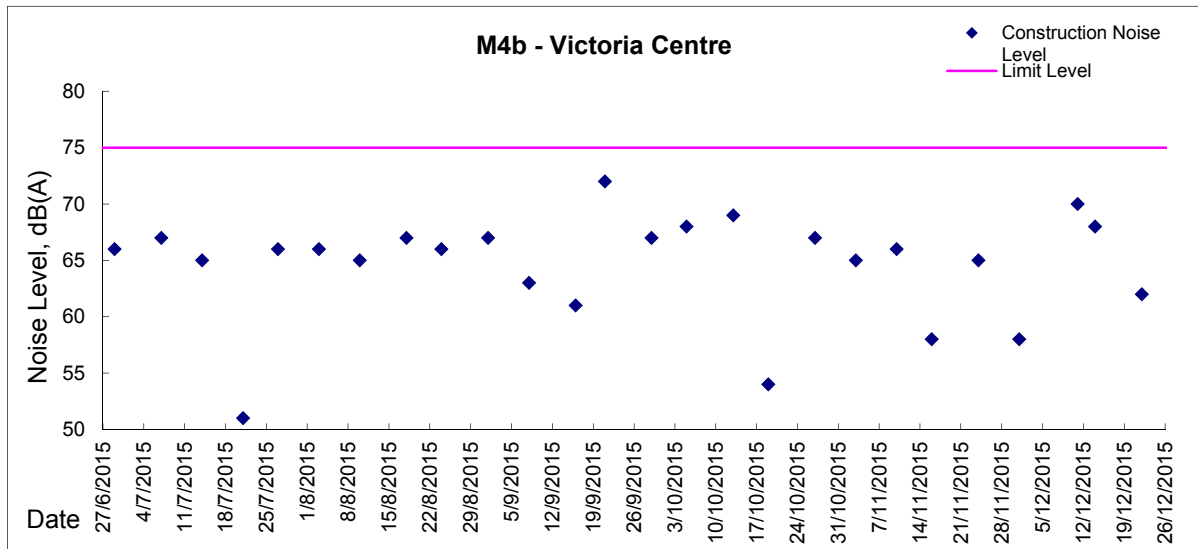
Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)



Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)





Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations, and odour Patrol Results



Location: CMA1b - Oil Street Site Office

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 176.7

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Dec-15	8:00	Cloudy	013881	2.8101	3.1082	7330.07	7354.07	24.00	1.27	1.28	1.27	1834	162.6
8-Dec-15	8:00	Cloudy	013987	2.8233	3.0409	7357.08	7381.08	24.00	1.28	1.28	1.28	1844	118.0
14-Dec-15	8:00	Cloudy	012443	2.8252	3.0146	7384.10	7408.10	24.00	1.28	1.28	1.28	1841	102.9
18-Dec-15	8:00	Fine	014176	2.8113	3.0920	7411.11	7435.11	24.00	1.29	1.29	1.29	1856	151.2
23-Dec-15	8:00	Cloudy	014057	2.8690	3.1845	7438.11	7462.11	24.00	1.27	1.27	1.27	1834	172.0

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 320.1

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Dec-15	8:03	Cloudy	013998	2.8346	2.8431	7354.07	7355.07	1.00	1.28	1.28	1.28	77	111.1
3-Dec-15	9:07	Cloudy	013993	2.8415	2.8511	7355.07	7356.07	1.00	1.28	1.28	1.28	77	125.4
3-Dec-15	10:25	Cloudy	013990	2.8160	2.8259	7356.07	7357.07	1.00	1.28	1.28	1.28	77	129.4
9-Dec-15	8:03	Rainy	013982	2.8309	2.8400	7381.08	7382.08	1.00	1.28	1.28	1.28	77	118.5
9-Dec-15	9:35	Rainy	013978	2.8396	2.8488	7382.09	7383.09	1.00	1.28	1.28	1.28	77	119.8
9-Dec-15	11:00	Rainy	013975	2.8385	2.8477	7383.10	7384.10	1.00	1.28	1.28	1.28	77	119.8
15-Dec-15	8:06	Cloudy	013803	2.7996	2.8073	7408.10	7409.10	1.00	1.28	1.28	1.28	77	100.2
15-Dec-15	10:00	Cloudy	013800	2.7971	2.8062	7409.11	7410.11	1.00	1.28	1.28	1.28	77	118.4
15-Dec-15	13:00	Cloudy	014181	2.8347	2.8450	7410.11	7411.11	1.00	1.28	1.28	1.28	77	134.1
19-Dec-15	8:30	Fine	014172	2.8052	2.8163	7435.11	7436.11	1.00	1.29	1.29	1.29	77	143.7
19-Dec-15	9:40	Fine	014169	2.8181	2.8292	7436.11	7437.11	1.00	1.29	1.29	1.29	77	143.7
19-Dec-15	13:00	Fine	013623	2.8043	2.8151	7437.11	7438.11	1.00	1.29	1.29	1.29	77	139.8
24-Dec-15	8:05	Cloudy	014273	2.8968	2.9090	7462.11	7463.11	1.00	1.27	1.27	1.27	76	159.8
24-Dec-15	9:18	Cloudy	014104	2.8693	2.8808	7463.11	7464.11	1.00	1.27	1.27	1.27	76	150.6
24-Dec-15	10:29	Cloudy	014101	2.8922	2.9045	7464.11	7465.11	1.00	1.27	1.27	1.27	76	161.1



Location: CMA2a - Causeway Bay Community Centre

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 169.5

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Dec-15	8:00	Cloudy	014002	2.8340	3.0494	16980.01	17004.01	24.00	1.22	1.22	1.22	1760	122.4
8-Dec-15	8:00	Cloudy	013838	2.8186	2.9782	17007.01	17031.01	24.00	1.23	1.23	1.23	1772	90.1
14-Dec-15	8:00	Cloudy	012441	2.8359	2.9214	17034.02	17058.02	24.00	1.11	1.12	1.12	1607	53.2
18-Dec-15	8:00	Fine	014208	2.8128	2.9332	17061.02	17085.02	24.00	1.13	1.12	1.13	1622	74.2
23-Dec-15	8:00	Cloudy	014217	2.8992	3.0877	17088.02	17112.02	24.00	1.22	1.22	1.22	1761	107.0

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 323.4

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Dec-15	8:05	Cloudy	014003	2.8302	2.8358	17004.01	17005.01	1.00	1.22	1.22	1.22	73	76.2
3-Dec-15	9:19	Cloudy	013889	2.7999	2.8074	17005.01	17006.01	1.00	1.17	1.17	1.17	70	106.9
3-Dec-15	10:25	Cloudy	013842	2.8303	2.8402	17006.01	17007.01	1.00	1.22	1.22	1.22	73	134.7
9-Dec-15	8:05	Rainy	013983	2.8290	2.8356	17031.01	17032.01	1.00	1.23	1.23	1.23	74	89.5
9-Dec-15	9:24	Rainy	013828	2.8026	2.8099	17032.01	17033.01	1.00	1.23	1.23	1.23	74	99.0
9-Dec-15	10:53	Rainy	013832	2.8072	2.8148	17033.01	17034.01	1.00	1.23	1.23	1.23	74	103.0
15-Dec-15	8:30	Cloudy	013802	2.7994	2.8051	17058.02	17059.02	1.00	1.12	1.12	1.12	67	85.0
15-Dec-15	10:11	Cloudy	014199	2.8242	2.8304	17059.02	17060.02	1.00	1.12	1.12	1.12	67	92.4
15-Dec-15	13:00	Cloudy	014203	2.8285	2.8351	17060.02	17061.02	1.00	1.12	1.12	1.12	67	98.4
19-Dec-15	8:26	Fine	014183	2.8153	2.8244	17085.02	17086.02	1.00	1.24	1.24	1.24	74	122.5
19-Dec-15	9:37	Fine	014118	2.7981	2.8079	17086.02	17087.02	1.00	1.24	1.24	1.24	74	132.0
19-Dec-15	10:43	Fine	014114	2.8830	2.8937	17087.02	17088.02	1.00	1.24	1.24	1.24	74	144.1
24-Dec-15	8:05	Cloudy	014274	2.8653	2.8770	17112.02	17113.02	1.00	1.22	1.22	1.22	73	159.6
24-Dec-15	9:10	Cloudy	014269	2.8634	2.8729	17113.02	17114.02	1.00	1.22	1.22	1.22	73	129.6
24-Dec-15	10:15	Cloudy	014265	2.8732	2.8783	17114.02	17115.02	1.00	1.22	1.22	1.22	73	69.6



Location: CMA3a - CWB PRE Site Office Area

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 171

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Dec-15	8:00	Cloudy	013877	2.8016	2.9747	4472.13	4496.13	24.00	1.26	1.27	1.26	1820	95.1
8-Dec-15	8:00	Cloudy	013986	2.8330	2.9714	4499.14	4523.14	24.00	1.27	1.27	1.27	1831	75.6
14-Dec-15	8:00	Cloudy	012442	2.8321	2.9429	4526.15	4550.15	24.00	1.22	1.22	1.22	1755	63.1
18-Dec-15	8:00	Fine	014175	2.8176	2.9965	4553.15	4577.15	24.00	1.33	1.33	1.33	1915	93.4
23-Dec-15	8:00	Cloudy	014058	2.8752	3.0630	4580.15	4604.15	24.00	1.32	1.31	1.31	1894	99.2

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 311.3

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Dec-15	8:09	Cloudy	013995	2.8195	2.8267	4496.13	4497.13	1.00	1.18	1.18	1.18	71	101.9
3-Dec-15	9:35	Cloudy	013992	2.8306	2.8392	4497.13	4498.13	1.00	1.18	1.18	1.18	71	121.7
3-Dec-15	10:45	Cloudy	013989	2.8455	2.8524	4498.13	4499.13	1.00	1.18	1.18	1.18	71	97.7
9-Dec-15	8:30	Rainy	013980	2.8189	2.8242	4523.14	4524.14	1.00	1.18	1.18	1.18	71	74.7
9-Dec-15	10:00	Rainy	013977	2.8401	2.8500	4524.15	4525.15	1.00	1.18	1.18	1.18	71	139.6
9-Dec-15	13:00	Rainy	013974	2.8305	2.8379	4525.15	4526.15	1.00	1.18	1.18	1.18	71	104.3
15-Dec-15	10:49	Cloudy	014201	2.8330	2.8392	4550.15	4551.15	1.00	1.24	1.24	1.24	74	83.2
15-Dec-15	13:00	Cloudy	014180	2.8227	2.8296	4551.15	4552.15	1.00	1.24	1.24	1.24	74	92.6
15-Dec-15	14:18	Cloudy	014177	2.8244	2.8311	4552.15	4553.15	1.00	1.12	1.12	1.12	67	99.3
19-Dec-15	8:50	Fine	014171	2.7970	2.8056	4577.15	4578.15	1.00	1.25	1.25	1.25	75	114.8
19-Dec-15	10:00	Fine	014168	2.8192	2.8272	4578.15	4579.15	1.00	1.25	1.25	1.25	75	106.7
19-Dec-15	13:00	Fine	013622	2.8101	2.8213	4579.15	4580.15	1.00	1.25	1.25	1.25	75	149.4
24-Dec-15	8:45	Cloudy	014271	2.8895	2.9000	4604.15	4605.15	1.00	1.17	1.17	1.17	70	149.0
24-Dec-15	9:48	Cloudy	014103	2.8735	2.8816	4605.15	4606.15	1.00	1.23	1.23	1.23	74	109.5
24-Dec-15	10:52	Cloudy	014100	2.8751	2.8880	4606.15	4607.15	1.00	1.23	1.23	1.23	74	174.4



Location: CMA4a - SPCA

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 171.2

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Dec-15	8:00	Cloudy	013882	2.8057	3.0262	21256.97	21280.97	24.00	1.31	1.32	1.31	1893	116.5
8-Dec-15	8:00	Cloudy	013837	2.7988	2.9759	21283.98	21307.98	24.00	1.32	1.32	1.32	1903	93.0
14-Dec-15	8:00	Cloudy	012440	2.8313	2.9857	21310.99	21334.99	24.00	1.32	1.32	1.32	1900	81.3
18-Dec-15	8:00	Fine	013849	2.8358	3.0596	21338.00	21362.00	24.00	1.33	1.33	1.33	1915	116.8
23-Dec-15	8:00	Cloudy	014218	2.8836	3.1426	21365.00	21389.00	24.00	1.32	1.31	1.31	1894	136.8

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 312.5

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Dec-15	8:05	Cloudy	013997	2.8169	2.8255	21280.98	21281.98	1.00	1.32	1.32	1.32	79	108.9
3-Dec-15	9:41	Cloudy	013845	2.8296	2.8390	21281.98	21282.98	1.00	1.32	1.32	1.32	79	119.0
3-Dec-15	10:44	Cloudy	013841	2.8275	2.8363	21282.98	21283.98	1.00	1.32	1.32	1.32	79	111.4
9-Dec-15	8:30	Rainy	013981	2.8083	2.8182	21307.99	21308.99	1.00	1.32	1.32	1.32	79	124.9
9-Dec-15	10:00	Rainy	013829	2.8063	2.8161	21308.99	21309.99	1.00	1.32	1.32	1.32	79	123.7
9-Dec-15	13:00	Rainy	013833	2.8016	2.8102	21309.99	21310.99	1.00	1.32	1.32	1.32	79	108.5
15-Dec-15	10:38	Cloudy	014200	2.8152	2.8225	21334.99	21335.99	1.00	1.32	1.32	1.32	79	92.1
15-Dec-15	13:00	Cloudy	014204	2.8274	2.8366	21335.99	21336.99	1.00	1.32	1.32	1.32	79	116.0
15-Dec-15	14:04	Cloudy	014206	2.8314	2.8407	21337.00	21338.00	1.00	1.32	1.32	1.32	79	117.3
19-Dec-15	8:49	Fine	013821	2.8029	2.8182	21362.00	21363.00	1.00	1.33	1.33	1.33	80	192.0
19-Dec-15	9:57	Fine	014117	2.8062	2.8175	21363.00	21364.00	1.00	1.33	1.33	1.33	80	141.8
19-Dec-15	13:00	Fine	014113	2.8978	2.9090	21364.00	21365.00	1.00	1.33	1.33	1.33	80	140.6
24-Dec-15	8:30	Cloudy	014272	2.8818	2.8919	21389.00	21390.00	1.00	1.31	1.31	1.31	79	128.1
24-Dec-15	9:33	Cloudy	014268	2.8741	2.8856	21390.00	21391.00	1.00	1.31	1.31	1.31	79	145.9
24-Dec-15	10:45	Cloudy	014264	2.8794	2.8901	21391.00	21392.00	1.00	1.31	1.31	1.31	79	135.7



Location: CMA5b - Pedestrian Plaza

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 181

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Dec-15	11:58	Cloudy	013836	2.8100	2.9518	5789.99	5813.99	24.00	0.73	0.73	0.73	1054	134.5
8-Dec-15	8:00	Cloudy	013996	2.8359	2.9101	5813.99	5837.99	24.00	0.74	0.74	0.74	1061	69.9
14-Dec-15	8:00	Cloudy	013973	2.8487	2.9772	5841.02	5865.02	24.00	0.73	0.74	0.73	1057	121.6
18-Dec-15	8:00	Fine	014209	2.8304	3.0206	5868.03	5892.03	24.00	0.75	0.74	0.75	1075	176.9
23-Dec-15	8:00	Cloudy	012444	2.8262	3.0139	5895.03	5919.03	24.00	0.73	0.73	0.73	1049	178.9

Remarks: Due to interruption of electricity supply, the 24hr TSP was rescheduled from 2 December 2015 to 3 December 2015.

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 332

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Dec-15	8:25	Cloudy	013994	2.8308	2.8381	5786.98	5787.98	1.00	0.73	0.73	0.73	44	166.6
3-Dec-15	9:50	Cloudy	013844	2.8170	2.8258	5787.98	5788.98	1.00	0.73	0.73	0.73	44	200.8
3-Dec-15	10:55	Cloudy	013840	2.8341	2.8451	5788.98	5789.98	1.00	0.73	0.73	0.73	44	251.0
9-Dec-15	8:45	Rainy	013979	2.8290	2.8374	5837.99	5838.99	1.00	0.74	0.74	0.74	44	190.4
9-Dec-15	10:19	Rainy	013830	2.8173	2.8247	5839.02	5840.02	1.00	0.74	0.74	0.74	44	167.8
9-Dec-15	13:15	Rainy	013834	2.7957	2.8050	5840.02	5841.02	1.00	0.74	0.74	0.74	44	210.8
15-Dec-15	8:45	Cloudy	013801	2.7988	2.8058	5865.02	5866.02	1.00	0.74	0.74	0.74	44	158.4
15-Dec-15	10:55	Cloudy	014182	2.8190	2.8265	5866.03	5867.03	1.00	0.74	0.74	0.74	44	169.7
15-Dec-15	13:00	Cloudy	014205	2.8143	2.8210	5867.03	5868.03	1.00	0.74	0.74	0.74	44	151.6
19-Dec-15	9:05	Fine	013822	2.7932	2.8016	5892.03	5893.03	1.00	0.74	0.74	0.74	45	188.1
19-Dec-15	10:14	Fine	014116	2.8404	2.8491	5893.03	5894.03	1.00	0.74	0.74	0.74	45	194.8
19-Dec-15	13:00	Fine	014112	2.9012	2.9100	5894.03	5895.03	1.00	0.74	0.74	0.74	45	197.1
24-Dec-15	8:50	Cloudy	014270	2.8795	2.8888	5919.03	5920.03	1.00	0.73	0.73	0.73	44	213.2
24-Dec-15	9:53	Cloudy	014267	2.8836	2.8951	5920.03	5921.03	1.00	0.79	0.79	0.79	48	241.4
24-Dec-15	10:56	Cloudy	014263	2.8928	2.9042	5921.03	5922.03	1.00	0.79	0.79	0.79	48	239.3



Location: CMA6a - WD2 PRE Office

Report on 24-hour TSP monitoring

Action Level - 187.3 $\mu\text{g}/\text{m}^3$
Limit Level - 260 $\mu\text{g}/\text{m}^3$

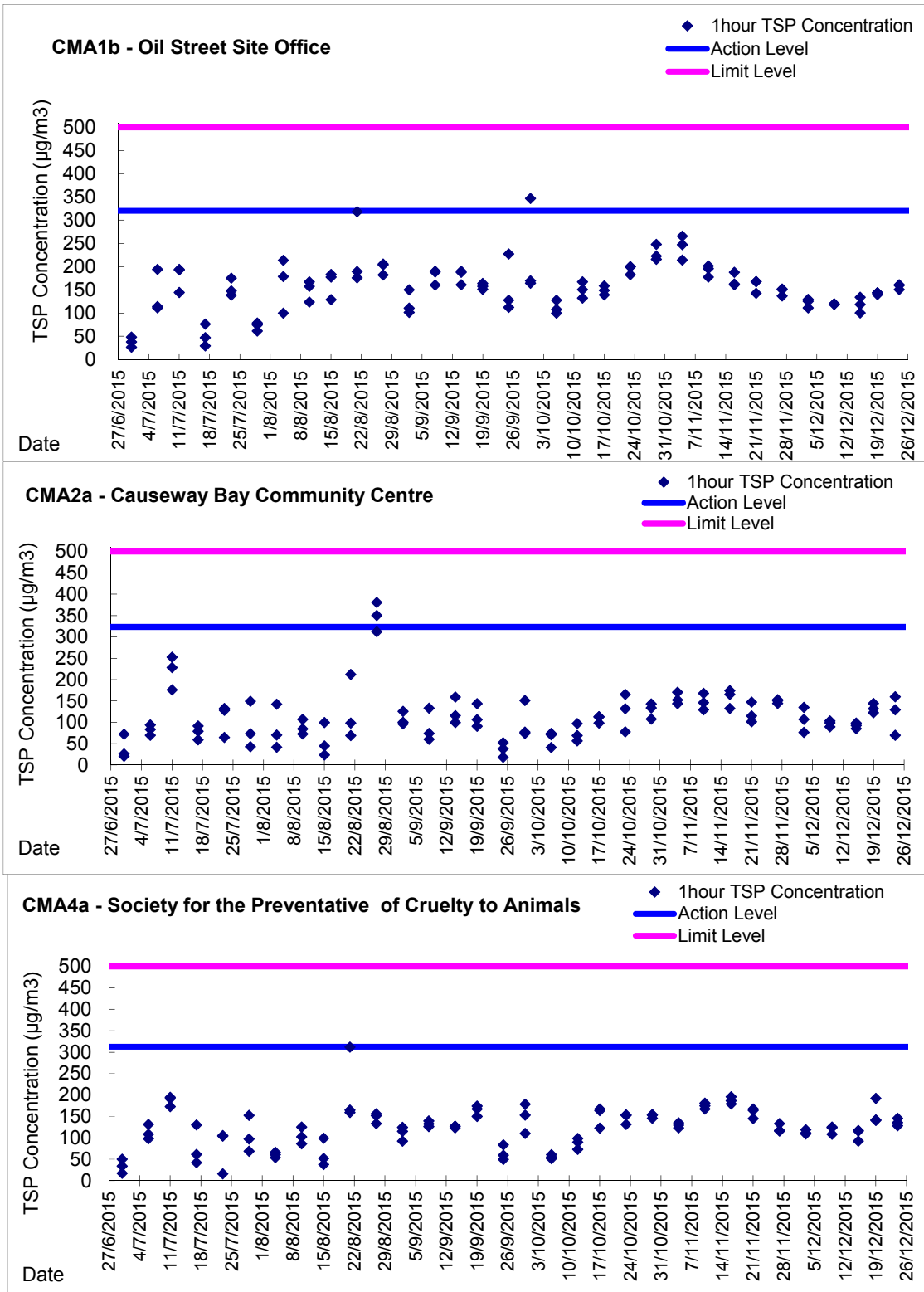
Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Dec-15	8:00	Cloudy	014000	2.8208	3.0472	20837.28	20861.28	24.00	1.19	1.20	1.20	1721	131.5
8-Dec-15	8:00	Cloudy	013985	2.8416	3.0481	20864.29	20888.29	24.00	1.21	1.20	1.20	1735	119.0
14-Dec-15	8:00	Cloudy	013806	2.8040	3.0050	20891.29	20915.29	24.00	1.20	1.20	1.20	1730	116.2
18-Dec-15	8:00	Fine	014174	2.8263	3.0685	20918.29	20942.29	24.00	1.22	1.21	1.21	1749	138.5
23-Dec-15	8:00	Cloudy	014109	2.8854	3.1455	20945.29	20969.29	24.00	1.20	1.19	1.20	1722	151.0

Report on 1-hour TSP monitoring

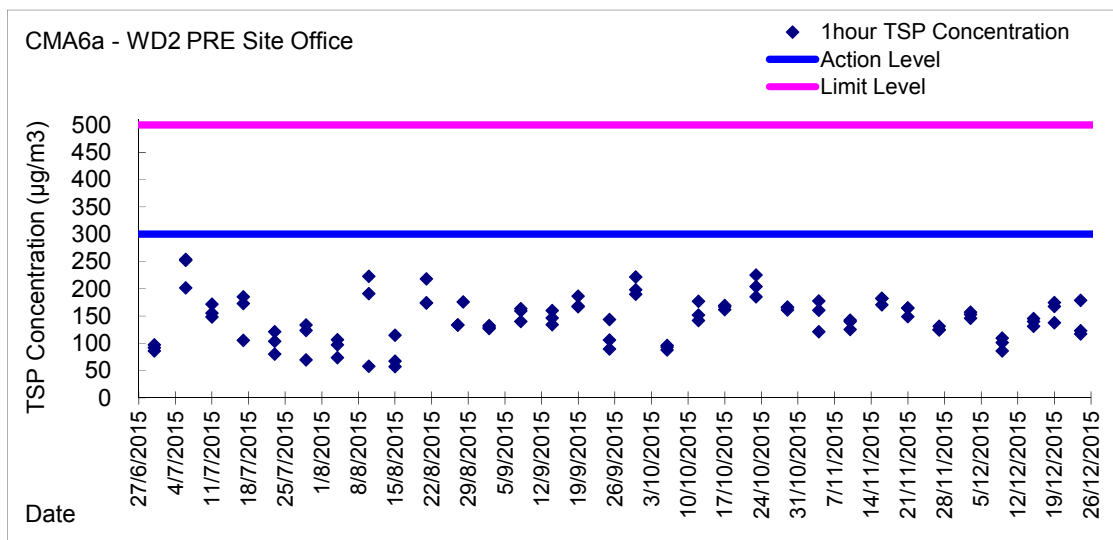
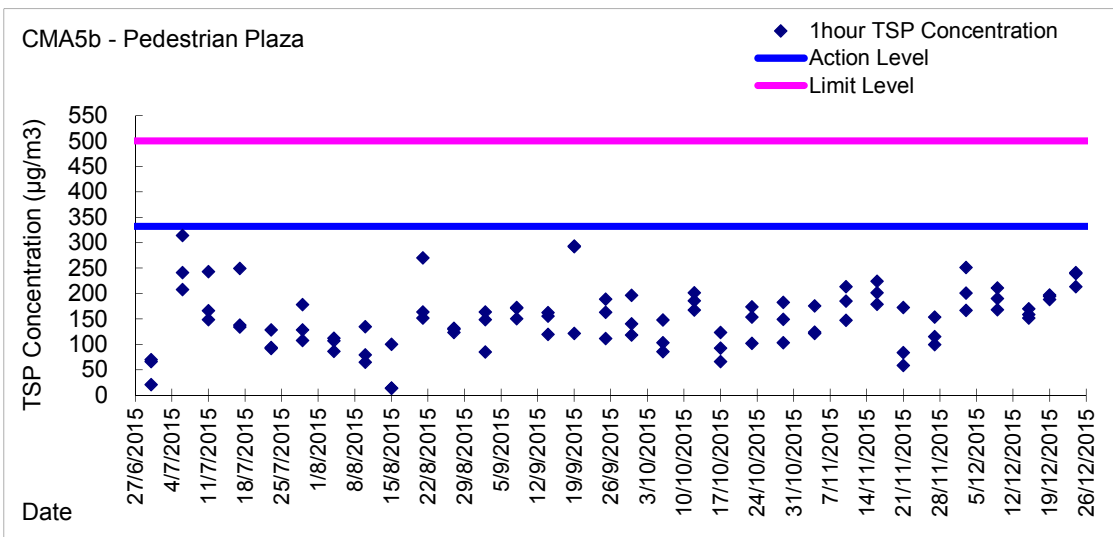
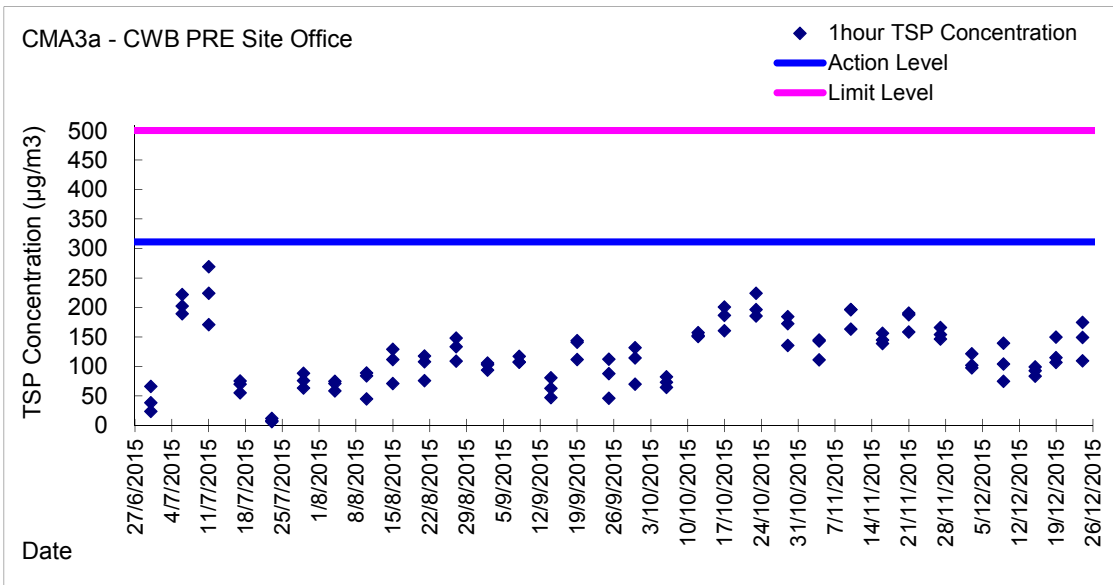
Action Level - 300.1 $\mu\text{g}/\text{m}^3$
Limit Level - 500 $\mu\text{g}/\text{m}^3$

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Dec-15	8:33	Cloudy	013887	2.8103	2.8216	20861.28	20862.28	1.00	1.20	1.20	1.20	72	157.2
3-Dec-15	9:55	Cloudy	013991	2.8184	2.8294	20862.29	20863.29	1.00	1.20	1.20	1.20	72	153.0
3-Dec-15	11:00	Cloudy	013988	2.8348	2.8453	20863.29	20864.29	1.00	1.20	1.20	1.20	72	146.1
9-Dec-15	8:42	Rainy	013826	2.8063	2.8142	20888.29	20889.29	1.00	1.20	1.20	1.20	72	109.4
9-Dec-15	10:30	Rainy	013976	2.8370	2.8432	20889.29	20890.29	1.00	1.20	1.20	1.20	72	85.9
9-Dec-15	13:00	Rainy	013819	2.8167	2.8240	20890.29	20891.29	1.00	1.20	1.20	1.20	72	101.1
15-Dec-15	9:02	Cloudy	014196	2.8235	2.8340	20915.29	20916.29	1.00	1.20	1.20	1.20	72	145.3
15-Dec-15	10:40	Cloudy	013798	2.8074	2.8169	20916.29	20917.29	1.00	1.20	1.20	1.20	72	131.5
15-Dec-15	13:00	Cloudy	014179	2.8172	2.8273	20917.29	20918.29	1.00	1.20	1.20	1.20	72	139.8
19-Dec-15	9:15	Fine	014170	2.8072	2.8172	20942.29	20943.29	1.00	1.21	1.21	1.21	73	137.5
19-Dec-15	10:20	Fine	013624	2.7756	2.7883	20943.29	20944.29	1.00	1.21	1.21	1.21	73	174.6
19-Dec-15	13:00	Fine	013621	2.8147	2.8269	20944.29	20945.29	1.00	1.21	1.21	1.21	73	167.7
24-Dec-15	8:39	Cloudy	014106	2.8984	2.9112	20969.29	20970.29	1.00	1.19	1.19	1.19	72	178.6
24-Dec-15	9:50	Cloudy	014102	2.8909	2.8993	20970.29	20971.29	1.00	1.19	1.19	1.19	72	117.2
24-Dec-15	13:00	Cloudy	014099	2.8767	2.8855	20971.29	20972.29	1.00	1.19	1.19	1.19	72	122.8

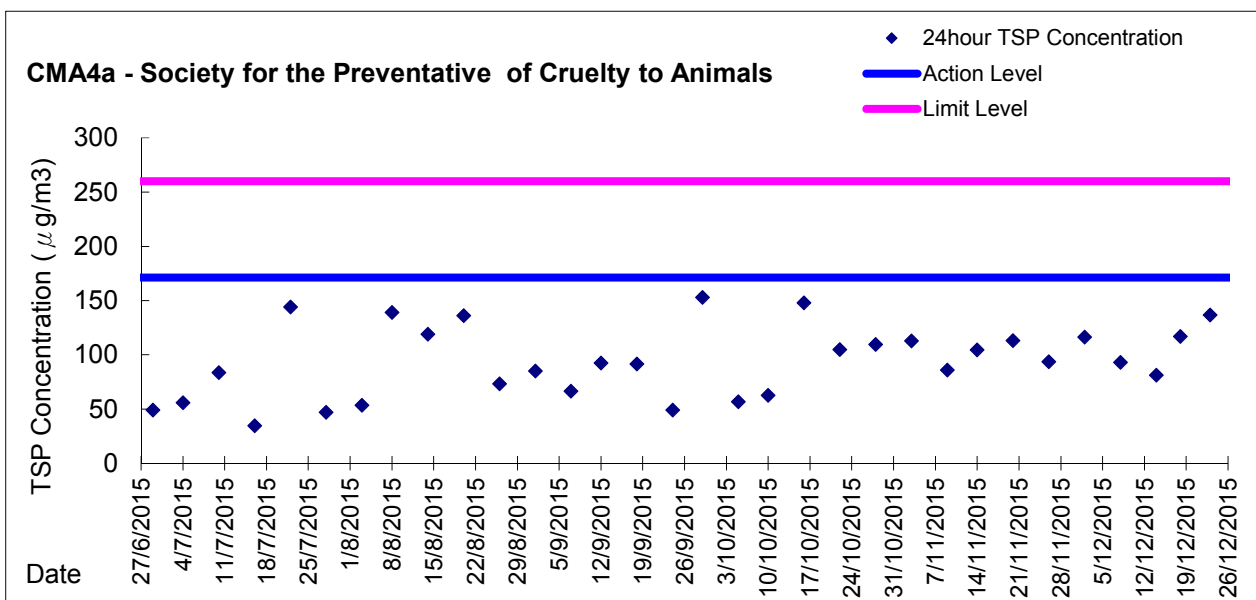
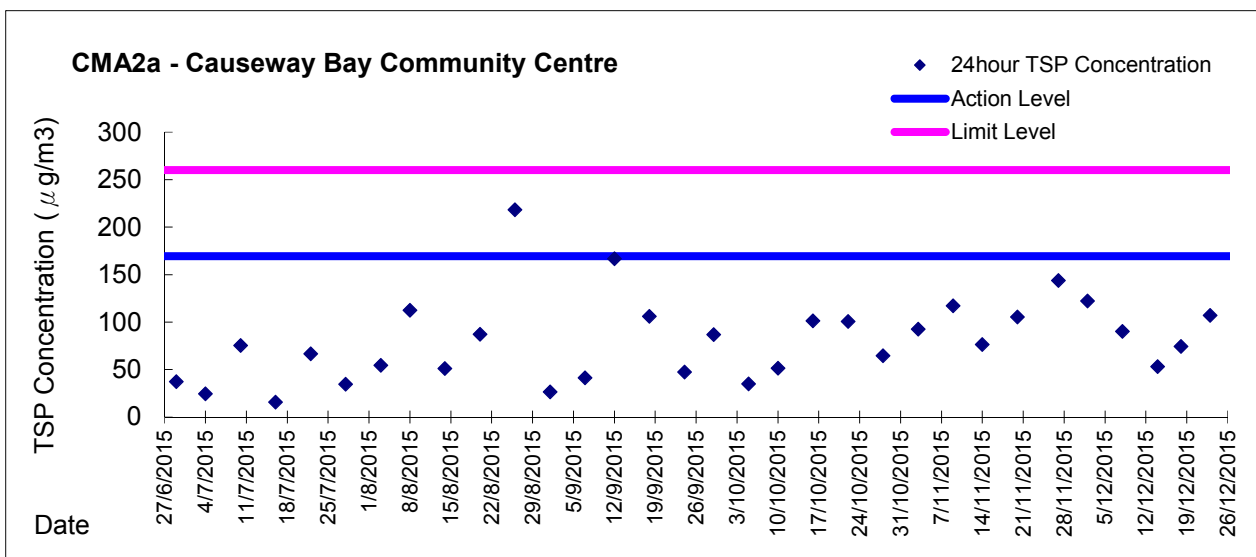
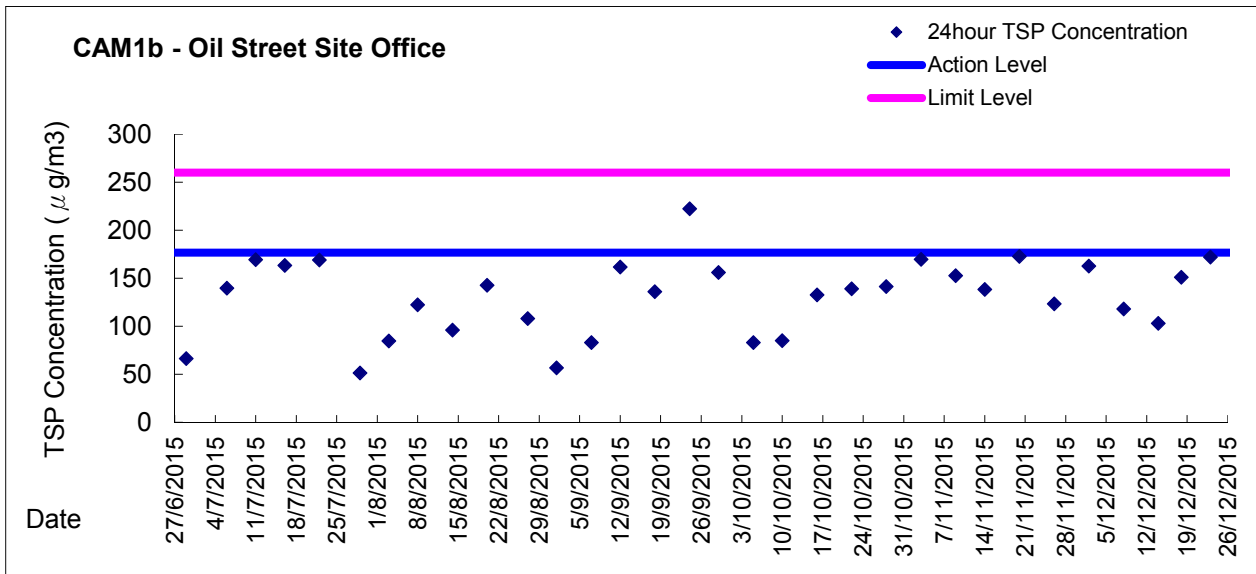
Graphic Presentation of 1 hour TSP Result



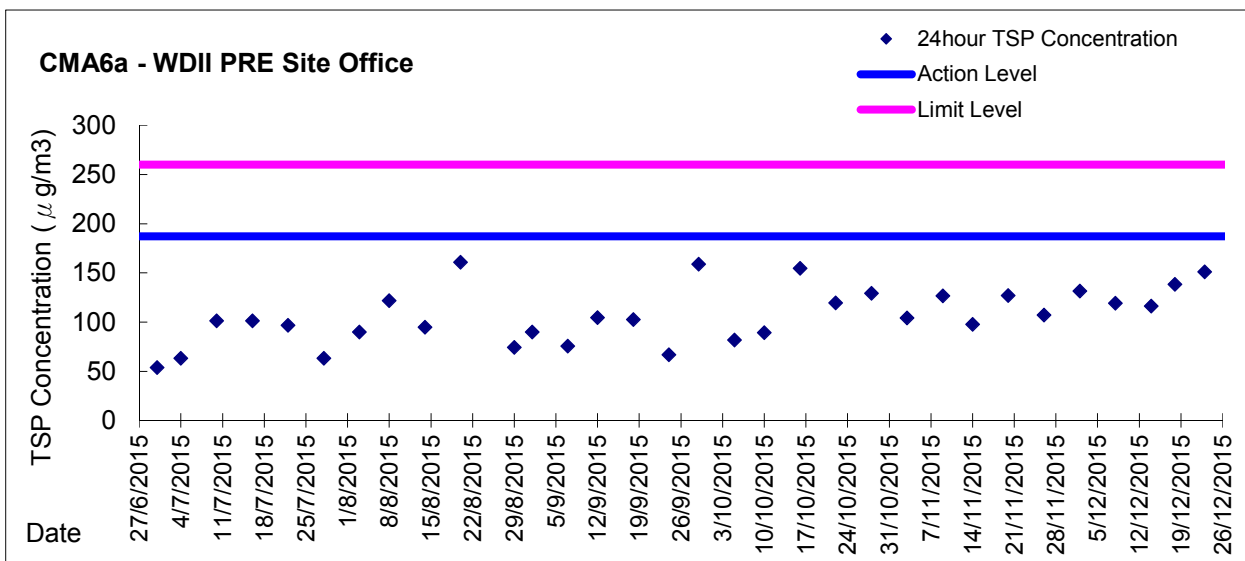
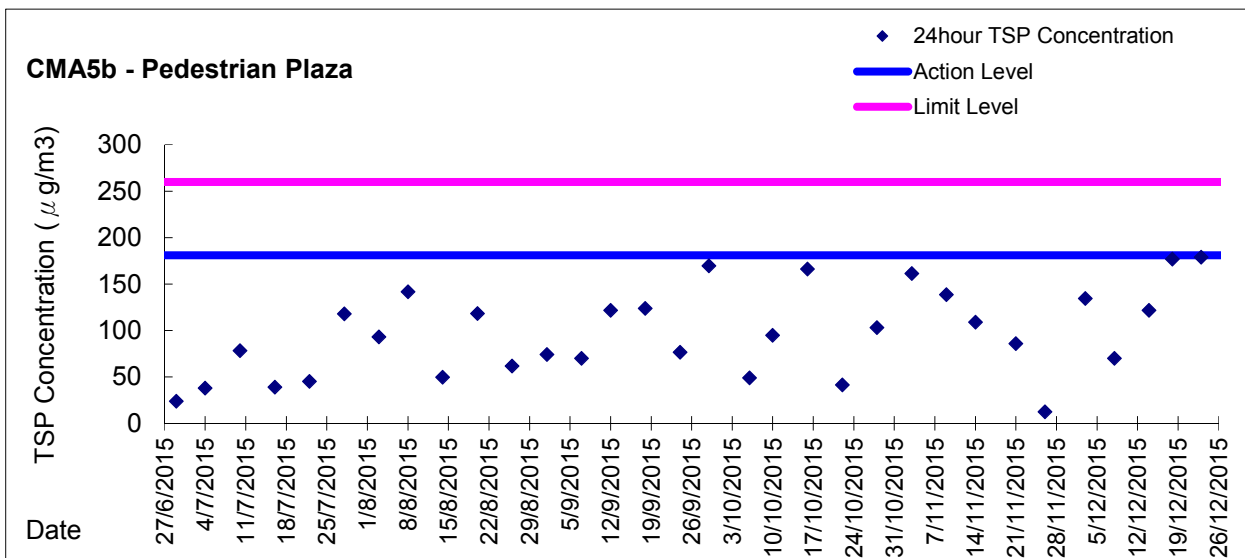
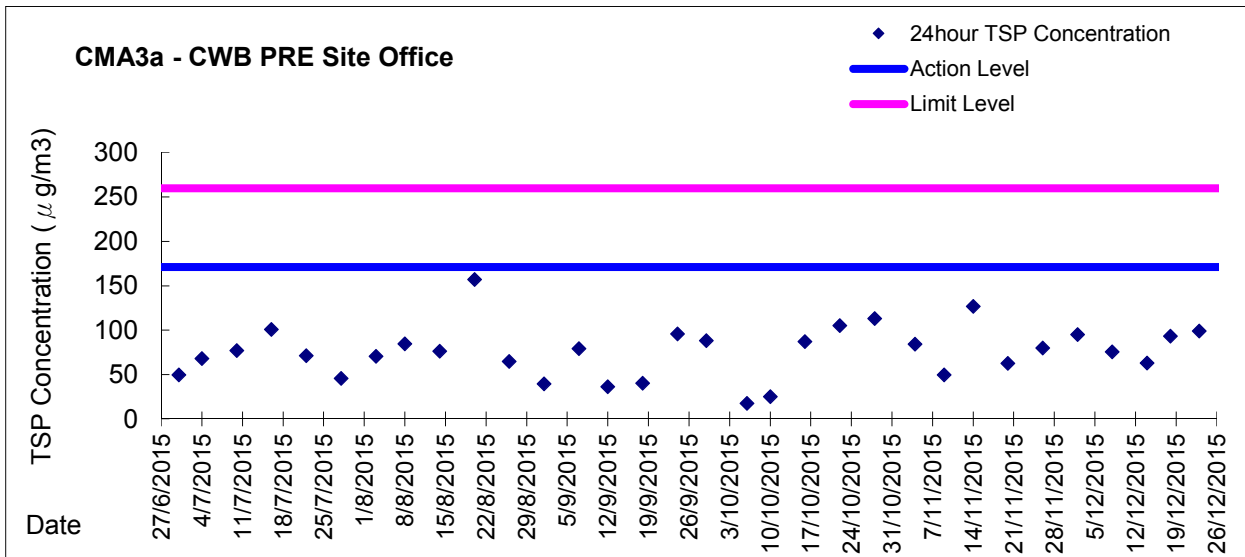
Graphic Presentation of 1 hour TSP Result



Graphic Presentation of 24 hour TSP Result



Graphic Presentation of 24 hour TSP Result





Appendix 5.4

***Water Quality and Additional Dissolved Oxygen Monitoring Results and Graphical
Presentations***



Water Monitoring Result at C7 - Windsor House
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
30/11/2015	12:05	Fine	Middle	-	24.40	24.40	24.55	8.32	8.32	8.33	31.65	31.65	31.79	84.8	87.9	87.1	5.88	6.09	6.03	6.10	6.00	6.00	3	3.50
	12:07		Middle	-	24.70	24.70		8.33	8.33		31.92	31.92		87.9	87.6		6.09	6.07		5.94	5.94		4	
2/12/2015	16:22	Fine	Middle	-	24.60	24.60	24.60	8.31	8.31	8.32	32.08	32.08	32.08	87.1	88.3	87.5	6.04	6.12	6.07	4.58	4.80	4.74	3	3.50
	16:24		Middle	-	24.60	24.60		8.33	8.33		32.08	32.08		87.6	87.1		6.07	6.04		4.84	4.73		4	
4/12/2015	15:04	Fine	Middle	-	23.70	23.70	23.70	8.39	8.39	8.40	32.47	32.47	32.48	76.3	74.3	73.6	5.36	5.22	5.17	5.41	5.34	5.34	6	5.00
	15:06		Middle	-	23.70	23.70		8.40	8.40		32.48	32.48		72.4	71.2		5.09	5.00		5.38	5.23		4	
7/12/2015	15:45	Fine	Middle	-	23.20	23.20	23.10	8.35	8.35	8.38	32.97	32.97	32.98	95.1	94.5	94.1	6.74	6.70	6.67	4.51	4.52	4.52	2	2.00
	15:47		Middle	-	23.00	23.00		8.41	8.41		32.98	32.98		93.8	92.9		6.65	6.59		4.53	4.51		2	
9/12/2015	17:10	Rainy	Middle	-	21.80	21.80	21.75	8.35	8.35	8.38	32.90	32.90	32.91	87.8	88.3	87.9	6.37	6.40	6.38	7.78	7.82	7.70	8	8.50
	17:12		Middle	-	21.70	21.70		8.40	8.40		32.92	32.92		87.4	88.0		6.35	6.39		7.61	7.60		9	
11/12/2015	14:56	Fine	Middle	-	23.30	23.30	23.35	8.40	8.40	8.40	32.58	32.58	32.59	67.7	66.9	66.9	4.79	4.73	4.73	4.68	4.68	4.75	<2	<2
	14:58		Middle	-	23.40	23.40		8.40	8.40		32.60	32.60		66.6	66.4		4.71	4.69		4.81	4.81		<2	
14/12/2015	10:30	Cloudy	Middle	-	22.60	22.60	22.55	8.36	8.36	8.37	32.82	32.82	32.83	81.3	83.1	83.2	5.81	5.94	5.95	3.95	3.95	3.96	3	3.50
	10:32		Middle	-	22.50	22.50		8.38	8.38		32.84	32.84		84.0	84.5		6.01	6.05		3.97	3.98		4	
16/12/2015	11:30	Fine	Middle	-	21.40	21.40	21.30	8.38	8.38	8.39	32.80	32.80	32.81	86.0	87.0	86.5	6.28	6.36	6.32	6.39	6.40	6.42	9	9.00
	11:32		Middle	-	21.20	21.20		8.39	8.39		32.82	32.82		87.0	85.9		6.36	6.29		6.43	6.45		9	
18/12/2015	15:54	Fine	Middle	-	20.80	20.80	20.80	8.36	8.36	8.37	32.80	32.80	32.82	84.8	84.3	84.2	6.26	6.23	6.22	8.00	8.00	8.01	9	8.50
	15:56		Middle	-	20.80	20.80		8.37	8.37		32.84	32.84		83.6	84.2		6.17	6.22		8.02	8.03		8	
21/12/2015	14:45	Fine	Middle	-	20.80	20.80	20.85	8.30	8.30	8.32	32.71	32.71	32.71	84.9	83.5	84.5	6.27	6.17	6.23	6.81	6.71	6.72	8	7.00
	14:47		Middle	-	20.90	20.90		8.34	8.34		32.70	32.70		84.6	84.8		6.25	6.21		6.69	6.66		6	
23/12/2015	15:30	Cloudy	Middle	-	21.20	21.20	21.25	8.17	8.17	8.23	32.41	32.41	32.41	89.2	91.1	90.6	6.55	6.69	6.65	4.59	4.59	4.62	5	5.50
	15:32		Middle	-	21.30	21.30		8.28	8.28		32.40	32.40		90.7	91.3		6.66	6.70		4.65	4.65		6	
26/12/2015	6:47	Cloudy	Middle	-	19.90	19.90	19.85	8.36	8.36	8.37	32.49	32.49	32.51	79.9	80.8	80.1	6.02	6.09	6.04	2.19	2.21	2.26	<2	<2
	6:48		Middle	-	19.80	19.80		8.38	8.38		32.52	32.52		80.2	79.6		6.04	6.00		2.27	2.38		<2	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at C1 - HKCEC Extension
Mid-Flood Tide**

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	11:20	Fine	Middle	3.0	23.80	23.80	23.80	8.39	8.39	8.39	32.21	32.21	32.22	83.8	85.7	84.9	5.88	6.02	5.96	7.49	7.36	7.31	4	4.00
	11:22		Middle	3.0	23.80	23.80		8.39	8.39		32.23	32.23		84.5	85.4		5.93	6.00		7.18	7.19		4	
2/12/2015	15:31	Fine	Middle	2.5	24.10	24.10	24.10	8.38	8.38	8.38	32.32	32.32	32.33	74.6	73.1	72.6	5.21	5.10	5.07	5.75	5.80	5.79	4	4.00
	15:33		Middle	2.5	24.10	24.10		8.38	8.38		32.33	32.33		71.8	71.0		5.01	4.96		5.80	5.79		4	
4/12/2015	14:20	Fine	Middle	2.5	22.90	22.90	22.85	8.42	8.42	8.43	32.70	32.70	32.71	78.0	76.9	77.2	5.56	5.48	5.51	7.14	7.10	7.09	5	5.00
	14:22		Middle	2.5	22.80	22.80		8.43	8.43		32.71	32.71		77.4	76.4		5.54	5.44		7.07	7.05		5	
7/12/2015	14:56	Fine	Middle	2.5	22.20	22.20	22.20	8.48	8.48	8.48	33.05	33.05	33.06	75.4	73.7	73.2	5.42	5.30	5.26	5.89	5.83	5.86	3	3.00
	14:58		Middle	2.5	22.20	22.20		8.48	8.48		33.06	33.06		72.3	71.3		5.20	5.13		5.84	5.87		3	
9/12/2015	16:07	Rainy	Middle	2.5	21.60	21.60	21.60	8.46	8.46	8.46	32.54	32.54	32.55	77.5	76.1	75.0	5.65	5.54	5.46	7.89	8.05	7.99	8	7.00
	16:09		Middle	2.5	21.60	21.60		8.46	8.46		32.55	32.55		73.7	72.6		5.37	5.29		7.79	8.22		6	
11/12/2015	16:47	Fine	Middle	2.5	21.90	21.90	21.90	8.43	8.43	8.43	32.84	32.84	32.84	75.1	74.9	74.4	5.44	5.42	5.38	4.81	4.68	4.78	2	2.50
	16:49		Middle	2.5	21.90	21.90		8.43	8.43		32.84	32.84		74.3	73.2		5.38	5.29		4.82	4.82		3	
14/12/2015	9:40	Cloudy	Middle	3.0	21.70	21.70	21.70	8.44	8.44	8.44	32.97	32.97	32.98	83.9	85.4	84.4	6.09	6.20	6.12	8.56	8.47	8.48	8	8.00
	9:42		Middle	3.0	21.70	21.70		8.44	8.44		32.98	32.98		84.3	83.8		6.12	6.08		8.45	8.44		8	
16/12/2015	10:40	Fine	Middle	2.5	19.90	19.90	19.90	8.45	8.45	8.45	32.91	32.91	32.92	73.6	73.1	72.8	5.52	5.49	5.46	8.11	7.80	7.89	8	8.00
	10:42		Middle	2.5	19.90	19.90		8.45	8.45		32.93	32.93		72.5	71.8		5.44	5.38		7.84	7.80		8	
18/12/2015	10:44	Fine	Middle	2.5	19.10	19.10	19.10	8.42	8.42	8.42	32.84	32.84	32.86	75.0	74.8	75.7	5.71	5.69	5.76	6.34	6.41	6.40	4	4.50
	10:46		Middle	2.5	19.10	19.10		8.42	8.42		32.87	32.87		76.0	77.0		5.78	5.87		6.42	6.42		5	
21/12/2015	16:48	Fine	Middle	3.0	20.10	20.10	15.08	8.43	8.43	8.43	32.92	32.92	32.92	87.1	87.9	87.2	6.51	6.57	6.51	5.58	5.53	5.53	2	2.00
	16:50		Middle	3.0	0.00	20.10		8.43	8.43		32.92	32.92		87.2	86.4		6.52	6.45		5.49	5.51		2	
23/12/2015	16:55	Cloudy	Middle	2.5	20.60	20.60	20.65	8.39	8.39	8.39	32.73	32.73	32.74	82.5	81.8	81.4	6.11	6.06	6.03	6.20	6.18	6.27	6	5.50
	16:57		Middle	2.5	20.70	20.70		8.39	8.39		32.74	32.74		81.1	80.1		6.01	5.93		6.28	6.41		5	
26/12/2015	6:07	Cloudy	Middle	2.5	19.20	19.20	19.20	8.38	8.38	8.39	32.00	32.00	32.00	70.3	70.9	70.7	5.37	5.41	5.40	3.28	3.55	3.49	4	3.00
	6:08		Middle	2.5	19.20	19.20		8.40	8.39		32.00	32.00		70.8	70.8		5.41	5.41		3.61	3.50		2	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at P1 - HKCEC Phase I
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids	
			m		°C		-		ppt		%		mg/L		NTU		mg/L	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
30/11/2015	11:00	Fine	Middle	3.0	23.90	23.90	8.34	8.34	32.04	32.04	88.4	89.8	6.20	6.30	6.27	6.41	4	4.00
	11:02		Middle	3.0	23.90	23.90	8.36	8.36	32.04	32.04	88.7	87.8	6.22	6.16	6.42	6.40	4	4.00
2/12/2015	15:15	Fine	Middle	2.5	24.30	24.30	8.28	8.28	32.47	32.47	81.9	81.7	5.69	5.67	6.88	7.00	4	4.00
	15:17		Middle	2.5	24.50	24.50	8.32	8.32	32.40	32.40	82.3	81.3	5.71	5.64	6.97	6.90	4	4.00
4/12/2015	14:04	Fine	Middle	2.5	22.70	22.70	8.27	8.27	32.58	32.58	78.7	77.2	5.63	5.52	5.76	5.75	4	3.50
	14:06		Middle	2.5	22.70	22.70	8.33	8.33	32.57	32.57	76.8	76.6	5.49	5.48	5.71	5.70	3	3.50
7/12/2015	14:40	Fine	Middle	2.5	22.10	22.10	8.43	8.43	33.10	33.10	79.5	80.9	5.73	5.83	4.29	4.27	3	3.50
	14:42		Middle	2.5	22.00	22.00	8.44	8.44	33.13	33.13	82.7	81.1	5.93	5.85	4.27	4.29	4	3.50
9/12/2015	15:51	Rainy	Middle	2.5	21.30	21.30	8.37	8.37	32.77	32.77	77.5	75.4	5.68	5.53	5.62	5.62	6	5.00
	15:53		Middle	2.5	21.20	21.20	8.41	8.41	32.77	32.77	74.7	73.4	5.47	5.38	5.62	5.63	4	5.00
11/12/2015	16:31	Fine	Middle	2.5	21.80	21.80	8.37	8.37	33.00	33.00	76.9	76.9	5.57	5.56	5.64	5.48	3	3.00
	16:33		Middle	2.5	21.90	21.90	8.39	8.39	32.97	32.97	76.3	74.7	5.52	5.40	5.44	5.38	3	3.00
14/12/2015	9:15	Cloudy	Middle	3.0	21.80	21.80	8.31	8.31	32.79	32.79	91.4	89.7	6.63	6.50	6.92	6.90	5	5.00
	9:17		Middle	3.0	21.80	21.80	8.37	8.37	32.65	32.65	90.7	90.0	6.57	6.52	6.71	6.70	5	5.00
16/12/2015	10:24	Fine	Middle	2.5	19.20	19.20	8.43	8.43	32.89	32.89	74.2	74.0	5.65	5.63	6.29	6.29	4	4.50
	10:26		Middle	2.5	19.10	19.10	8.43	8.43	32.90	32.90	73.4	72.2	5.59	5.50	6.29	6.25	5	4.50
18/12/2015	10:28	Fine	Middle	2.5	17.70	17.70	8.38	8.38	32.88	32.88	77.0	76.2	6.02	5.96	6.83	6.83	9	9.00
	10:30		Middle	2.5	17.70	17.70	8.40	8.40	32.94	32.94	75.7	75.7	5.92	5.87	6.83	6.83	9	9.00
21/12/2015	16:32	Fine	Middle	3.0	20.10	20.10	8.30	8.30	32.89	32.89	90.6	89.0	6.68	6.64	3.51	3.51	4	3.50
	16:34		Middle	3.0	20.30	20.30	8.37	8.37	32.88	32.88	84.9	86.1	6.33	6.42	3.51	3.51	3	3.50
23/12/2015	16:39	Cloudy	Middle	2.5	21.00	21.00	8.15	8.15	32.86	32.86	84.1	82.8	6.18	6.09	5.65	5.65	6	6.50
	16:41		Middle	2.5	21.10	21.10	8.27	8.27	32.79	32.79	84.7	81.1	6.00	5.96	5.72	5.47	7	6.50
26/12/2015	5:47	Cloudy	Middle	2.5	19.10	19.10	8.41	8.41	32.36	32.37	72.8	73.3	5.56	5.60	3.47	3.11	4	4.50
	5:48		Middle	2.5	19.10	19.10	8.42	8.42	32.36	32.36	73.4	73.5	5.61	5.62	3.09	3.14	5	4.50

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P3 - APA
Mid-Flood Tide**

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
30/11/2015	11:05	Fine	Middle	3.0	23.70	23.70	23.75	8.36	8.36	8.37	32.03	32.03	32.04	83.4	84.1	83.8	5.87	5.92	5.90	5.32	5.43	5.39	4	4.50
	11:07		Middle	3.0	23.80	23.80		8.37	8.37		32.04	32.04		83.7	84.0		5.89	5.91		5.47	5.34		5	
2/12/2015	15:19	Fine	Middle	2.5	24.20	24.20	24.25	8.34	8.34	8.35	32.35	32.35	32.35	76.8	75.4	74.9	5.35	5.25	5.22	6.55	6.46	6.33	4	5.00
	15:21		Middle	2.5	24.30	24.30		8.35	8.35		32.34	32.34		74.1	73.2		5.16	5.10		6.18	6.13		6	
4/12/2015	14:08	Fine	Middle	2.5	22.60	22.60	22.60	8.35	8.35	8.36	32.72	32.72	32.65	80.9	80.5	79.8	5.79	5.76	5.71	5.26	5.21	5.22	6	5.00
	14:10		Middle	2.5	22.60	22.60		8.37	8.37		32.57	32.57		80.0	77.8		5.73	5.57		5.20	5.20		4	
7/12/2015	14:44	Fine	Middle	2.5	22.20	22.20	22.20	8.45	8.45	8.45	33.05	33.05	33.05	73.2	71.7	71.6	5.25	5.14	5.14	4.20	4.00	3.96	4	3.50
	14:46		Middle	2.5	22.30	22.10		8.45	8.45		33.04	33.04		70.9	70.5		5.09	5.06		3.82	3.82		3	
9/12/2015	15:55	Rainy	Middle	2.5	21.50	21.50	21.50	8.42	8.42	8.43	32.83	32.83	32.83	69.4	68.5	67.8	5.06	4.99	4.94	6.42	6.54	6.39	3	4.00
	15:57		Middle	2.5	21.50	21.50		8.43	8.43		32.83	32.83		67.1	66.3		4.89	4.83		6.29	6.29		5	
11/12/2015	16:35	Fine	Middle	2.5	21.40	21.40	21.40	8.41	8.41	8.41	32.93	32.93	32.92	74.4	73.5	73.5	5.44	5.37	5.37	4.56	4.55	4.52	4	3.50
	16:37		Middle	2.5	21.40	21.40		8.41	8.41		32.90	32.90		73.1	72.8		5.34	5.31		4.56	4.40		3	
14/12/2015	9:20	Cloudy	Middle	3.0	21.70	21.70	21.70	8.39	8.39	8.39	32.40	32.40	32.64	86.2	86.4	85.8	6.26	6.27	6.23	7.50	7.51	7.57	5	5.50
	9:22		Middle	3.0	21.70	21.70		8.39	8.39		32.87	32.87		85.4	85.2		6.20	6.19		7.60	7.67		6	
16/12/2015	10:28	Fine	Middle	2.5	19.70	19.70	19.65	8.43	8.43	8.43	32.88	32.88	32.91	77.6	76.3	76.5	5.85	5.75	5.77	7.14	7.02	7.02	4	5.00
	10:30		Middle	2.5	19.60	19.60		8.43	8.43		32.93	32.93		75.8	76.4		5.71	5.76		6.98	6.93		6	
18/12/2015	10:32	Fine	Middle	2.5	18.50	18.40	18.43	8.41	8.41	8.41	32.88	32.88	32.90	75.3	75.0	74.9	5.81	5.79	5.78	6.82	6.92	6.96	7	8.00
	10:34		Middle	2.5	18.40	18.40		8.41	8.41		32.91	32.91		74.8	74.3		5.77	5.73		7.06	7.05		9	
21/12/2015	16:36	Fine	Middle	3.0	20.10	20.10	20.15	8.38	8.38	8.39	32.87	32.87	32.87	83.3	86.7	86.3	6.22	6.48	6.44	4.41	4.48	4.50	<2	<2
	16:38		Middle	3.0	20.20	20.20		8.39	8.39		32.87	32.87		87.7	87.3		6.55	6.52		4.55	4.56		<2	
23/12/2015	16:43	Cloudy	Middle	2.5	21.20	21.20	21.00	8.29	8.29	8.32	32.61	32.61	32.66	84.8	85.4	84.2	6.26	6.31	6.22	7.28	7.24	7.32	6	5.50
	16:45		Middle	2.5	20.80	20.80		8.34	8.34		32.71	32.71		84.6	81.8		6.26	6.05		7.36	7.40		5	
26/12/2015	5:52	Cloudy	Middle	2.5	19.10	19.10	19.10	8.30	8.30	8.33	32.01	32.01	32.02	70.8	71.8	72.1	5.42	5.49	5.52	3.36	3.38	3.38	4	5.00
	5:53		Middle	2.5	19.10	19.10		8.35	8.35		32.02	32.02		73.3	72.6		5.61	5.55		3.35	3.41		6	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at P4 - SOC
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	11:10	Fine	Middle	3.0	23.80	23.80	23.80	8.37	8.37	8.37	32.07	32.07	32.11	82.0	82.5	82.1	5.76	5.80	5.77	6.50	6.47	6.46	5	6.00
	11:12		Middle	3.0	23.80	23.80		8.37	8.37		32.14	32.14		82.4	81.3		5.79	5.71		6.45	6.43		7	
2/12/2015	15:23	Fine	Middle	2.5	24.10	24.10	24.10	8.36	8.36	8.37	32.34	32.34	32.34	74.3	74.6	74.3	5.19	5.21	5.19	5.74	5.50	5.43	3	3.50
	15:25		Middle	2.5	24.10	24.10		8.37	8.37		32.34	32.34		74.3	73.8		5.19	5.15		5.25	5.24		4	
4/12/2015	14:12	Fine	Middle	2.5	22.60	22.60	22.60	8.38	8.38	8.39	32.61	32.61	32.63	81.3	80.6	79.1	5.82	5.77	5.66	6.13	6.10	6.06	3	2.50
	14:14		Middle	2.5	22.60	22.60		8.40	8.40		32.64	32.64		77.7	76.8		5.56	5.49		6.06	5.96		2	
7/12/2015	14:48	Fine	Middle	2.5	22.10	22.10	22.10	8.46	8.46	8.47	33.12	33.12	33.13	74.7	73.7	73.8	5.38	5.30	5.32	4.38	4.47	4.42	4	4.00
	14:50		Middle	2.5	22.10	22.10		8.47	8.47		33.13	33.13		73.6	73.3		5.30	5.28		4.48	4.35		4	
9/12/2015	15:59	Rainy	Middle	2.5	21.40	21.40	21.40	8.45	8.45	8.45	32.70	32.70	32.70	77.5	76.5	75.7	5.67	5.60	5.54	5.76	5.88	5.80	5	5.00
	16:01		Middle	2.5	21.40	21.40		8.45	8.45		32.70	32.70		75.2	73.6		5.50	5.38		5.89	5.68		5	
11/12/2015	16:39	Fine	Middle	2.5	21.80	21.80	21.80	8.42	8.42	8.42	32.82	32.82	32.83	78.1	77.2	77.9	5.66	5.59	5.64	4.82	4.83	4.87	<2	<2
	16:41		Middle	2.5	21.80	21.80		8.42	8.42		32.84	32.84		77.6	78.5		5.63	5.69		4.92	4.92		<2	
14/12/2015	9:25	Cloudy	Middle	3.0	21.60	21.60	21.60	8.41	8.41	8.42	32.97	32.97	32.97	85.0	85.9	84.8	6.18	6.25	6.17	8.83	8.70	8.75	7	8.00
	9:27		Middle	3.0	21.60	21.60		8.43	8.43		32.96	32.96		84.2	84.0		6.12	6.11		8.69	8.76		9	
16/12/2015	10:32	Fine	Middle	2.5	19.50	19.50	19.45	8.44	8.44	8.45	32.75	32.75	32.82	81.7	80.7	80.9	6.18	6.10	6.12	7.73	7.48	7.59	4	4.50
	10:34		Middle	2.5	19.40	19.40		8.45	8.45		32.89	32.89		80.5	80.6		6.09	6.10		7.61	7.54		5	
18/12/2015	10:36	Fine	Middle	2.5	18.70	18.70	18.70	8.41	8.41	8.42	32.89	32.89	32.89	79.1	76.8	76.4	6.07	5.89	5.84	6.82	6.87	6.83	6	6.50
	10:38		Middle	2.5	18.70	18.70		8.42	8.42		32.89	32.89		75.8	73.8		5.74	5.67		6.82	6.82		7	
21/12/2015	16:40	Fine	Middle	3.0	20.00	20.00	20.00	8.40	8.40	8.41	32.92	32.92	32.92	85.9	84.9	85.4	6.43	6.36	6.40	4.89	4.92	4.96	3	2.50
	16:42		Middle	3.0	20.00	20.00		8.41	8.41		32.92	32.92		85.2	85.5		6.38	6.41		4.99	5.02		2	
23/12/2015	16:47	Cloudy	Middle	2.5	20.70	20.70	20.75	8.35	8.35	8.36	32.71	32.71	32.72	82.5	81.2	81.2	6.10	6.00	6.02	7.24	7.17	7.20	5	5.50
	16:49		Middle	2.5	20.80	20.80		8.37	8.37		32.73	32.73		80.9	80.3		6.05	5.94		7.31	7.09		6	
26/12/2015	5:57	Cloudy	Middle	2.5	18.90	18.90	18.90	8.44	8.44	8.44	32.09	32.09	32.09	74.9	76.3	76.6	5.74	5.85	5.88	3.59	3.51	3.56	5	4.50
	5:58		Middle	2.5	18.90	18.90		8.43	8.43		32.09	32.09		77.6	77.7		5.95	5.96		3.54	3.60		4	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at P5 - WCT / RT / IT
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	11:15	Fine	Middle	3.0	23.90	23.90	23.90	8.37	8.37	8.38	32.29	32.29	32.29	82.6	83.0	83.2	5.79	5.89	5.85	5.58	5.57	5.57	4	4.50
	11:17		Middle	3.0	23.90	23.90		8.38	8.38		32.29	32.29		83.8	83.3		5.88	5.84		5.52	5.59		5	
2/12/2015	15:27	Fine	Middle	2.5	24.10	24.10	24.10	8.37	8.37	8.38	32.16	32.16	32.22	73.6	72.3	71.9	5.14	5.05	5.02	5.29	5.24	5.24	4	3.50
	15:29		Middle	2.5	24.10	24.10		8.38	8.38		32.28	32.28		71.7	70.0		5.01	4.88		5.22	5.21		3	
4/12/2015	14:16	Fine	Middle	2.5	22.70	22.70	22.75	8.40	8.40	8.41	31.67	31.67	32.17	77.2	78.5	77.5	5.51	5.60	5.53	6.90	6.78	6.74	6	5.00
	14:18		Middle	2.5	22.80	22.80		8.42	8.42		32.67	32.67		77.9	76.2		5.56	5.43		6.73	6.56		4	
7/12/2015	14:52	Fine	Middle	2.5	22.00	22.00	22.00	8.47	8.47	8.48	33.07	33.07	33.07	75.2	73.4	73.3	5.38	5.29	5.28	4.78	4.80	4.82	5	5.00
	14:54		Middle	2.5	22.00	22.00		8.48	8.48		33.07	33.07		72.6	71.9		5.24	5.19		4.83	4.85		5	
9/12/2015	16:03	Rainy	Middle	2.5	21.60	21.60	21.60	8.46	8.46	8.46	32.50	32.50	32.51	76.5	74.2	73.9	5.37	5.40	5.32	7.31	7.45	7.63	7	7.00
	16:05		Middle	2.5	21.60	21.60		8.46	8.46		32.52	32.52		72.6	72.4		5.29	5.20		7.85	7.89		7	
11/12/2015	16:43	Fine	Middle	2.5	22.00	22.00	22.00	8.42	8.42	8.42	32.82	32.82	32.82	74.0	72.3	71.4	5.32	5.22	5.15	5.03	4.96	4.94	<2	<2
	16:45		Middle	2.5	22.00	22.00		8.42	8.42		32.82	32.82		70.1	69.0		5.06	4.99		4.92	4.86		<2	
14/12/2015	9:33	Cloudy	Middle	3.0	21.70	21.70	24.45	8.43	8.43	8.44	32.98	32.98	32.99	82.1	81.8	81.6	5.96	5.94	5.93	8.49	8.52	8.53	9	8.50
	9:35		Middle	3.0	21.70	32.70		8.44	8.44		32.99	32.99		82.1	80.4		5.96	5.84		8.54	8.55		8	
16/12/2015	10:36	Fine	Middle	2.5	19.90	19.90	19.90	8.45	8.45	8.45	32.88	32.88	32.90	79.8	79.1	78.3	5.98	5.93	5.87	8.11	8.22	8.24	14	14.50
	10:38		Middle	2.5	19.90	19.90		8.45	8.45		32.92	32.92		77.6	76.8		5.82	5.76		8.31	8.30		15	
18/12/2015	10:40	Fine	Middle	2.5	19.00	19.00	18.95	8.42	8.42	8.42	32.84	32.84	32.84	75.3	74.2	73.8	5.75	5.59	5.62	6.47	6.30	6.33	6	6.50
	10:42		Middle	2.5	18.90	18.90		8.42	8.42		32.84	32.84		73.0	72.8		5.57	5.56		6.29	6.27		7	
21/12/2015	16:44	Fine	Middle	3.0	20.00	20.00	20.00	8.42	8.42	8.42	32.92	32.92	32.92	87.8	87.3	87.2	6.57	6.53	6.53	5.62	5.76	5.72	3	3.50
	16:46		Middle	3.0	20.00	20.00		8.42	8.42		32.92	32.92		87.0	86.7		6.51	6.49		5.75	5.75		4	
23/12/2015	16:51	Cloudy	Middle	2.5	20.70	20.70	20.95	8.35	8.38	8.37	32.63	32.63	32.69	82.4	80.6	80.6	6.10	5.97	5.97	7.49	7.43	7.44	9	9.00
	16:53		Middle	2.5	21.70	20.70		8.38	8.38		32.74	32.74		79.5	79.8		5.88	5.91		7.43	7.41		9	
26/12/2015	6:02	Cloudy	Middle	2.5	19.00	19.00	19.00	8.44	8.44	8.44	31.73	31.72	31.73	72.1	72.3	72.1	5.55	5.56	5.55	3.56	3.59	3.53	3	3.00
	6:03		Middle	2.5	19.00	19.00		8.43	8.43		31.74	31.74		72.0	72.1		5.54	5.54		3.50	3.48		3	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre
Mid-Flood Tide**

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity			Suspended Solids					
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	11:40	Fine	Middle	3.5	24.10	24.10	24.10	8.38	8.38	8.39	32.43	32.43	32.43	82.4	83.6	82.8	5.78	5.84	5.81	11.02	11.30	<u>11.13</u>	7	8.00
	11:42		Middle	3.5	24.10	24.10		8.39	8.39		32.43	32.43		82.0	83.0		5.79	5.81		11.17	11.04		9	
2/12/2015	15:50	Fine	Middle	3.5	24.20	24.20	24.25	8.32	8.32	8.34	32.45	32.45	32.45	84.2	81.0	80.6	5.86	5.64	5.61	3.33	3.34	3.33	6	6.50
	15:52		Middle	3.5	24.30	24.30		8.35	8.35		32.44	32.44		79.2	78.0		5.51	5.43		3.33	3.33		7	
4/12/2015	14:37	Fine	Middle	3.5	22.90	22.90	22.90	8.37	8.37	8.39	32.69	32.69	32.70	80.0	78.6	78.2	5.68	5.59	5.56	6.88	6.47	6.63	5	5.50
	14:39		Middle	3.5	22.90	22.90		8.41	8.41		32.70	32.70		77.4	76.6		5.51	5.45		6.65	6.53		6	
7/12/2015	15:13	Fine	Middle	3.5	22.20	22.20	22.20	8.42	8.42	8.44	33.08	33.08	33.10	77.3	76.2	75.6	5.56	5.48	5.44	5.76	5.66	5.72	5	4.50
	15:15		Middle	3.5	22.20	22.20		8.45	8.45		33.11	33.11		74.8	74.0		5.38	5.32		5.64	5.82		4	
9/12/2015	16:31	Rainy	Middle	3.5	21.30	21.30	21.25	8.40	8.40	8.41	32.44	32.44	32.46	73.8	73.3	73.6	5.42	5.38	5.40	6.45	6.43	6.41	4	4.00
	16:33		Middle	3.5	21.20	21.20		8.42	8.42		32.47	32.47		73.3	73.8		5.38	5.42		6.39	6.37		4	
11/12/2015	17:30	Fine	Middle	3.5	22.00	22.00	21.95	8.37	8.37	8.39	32.93	32.93	32.93	80.8	79.0	79.0	5.84	5.71	5.70	5.59	5.49	5.46	2	2.50
	17:32		Middle	3.5	21.90	21.90		8.41	8.41		32.93	32.93		78.4	77.7		5.63	5.62		5.42	5.34		3	
14/12/2015	9:55	Cloudy	Middle	3.5	21.80	21.80	21.80	8.38	8.38	8.39	32.95	32.95	32.96	90.1	89.8	89.5	6.53	6.50	6.48	5.91	5.90	5.90	8	7.50
	9:57		Middle	3.5	21.80	21.80		8.40	8.40		32.96	32.96		89.4	88.5		6.49	6.41		5.89	5.89		7	
16/12/2015	11:01	Fine	Middle	3.5	20.10	20.10	20.05	8.41	8.41	8.43	32.76	32.76	32.79	78.6	77.7	77.6	5.88	5.82	5.81	7.00	7.00	6.92	9	9.00
	11:03		Middle	3.5	20.00	20.00		8.44	8.44		32.82	32.82		77.3	76.8		5.79	5.75		6.84	6.85		9	
18/12/2015	11:00	Fine	Middle	3.5	19.40	19.40	19.40	8.36	8.36	8.38	32.73	32.73	32.82	82.5	82.0	81.5	6.25	6.21	6.18	5.75	5.49	5.66	4	4.50
	11:02		Middle	3.5	19.40	19.40		8.39	8.39		32.90	32.90		81.0	80.6		6.14	6.11		5.74	5.66		5	
21/12/2015	14:00	Fine	Middle	3.5	21.10	21.10	21.15	8.35	8.35	8.36	32.89	32.89	32.89	95.3	95.1	95.0	6.99	6.98	6.97	5.61	5.71	5.70	4	3.50
	14:02		Middle	3.5	21.20	21.20		8.37	8.37		32.89	32.89		95.3	94.4		6.99	6.92		5.74	5.75		3	
23/12/2015	14:50	Cloudy	Middle	3.5	21.10	21.10	21.20	8.24	8.24	8.28	32.68	32.68	32.68	94.1	96.5	94.9	7.27	7.07	7.04	4.30	4.15	4.19	5	4.50
	14:52		Middle	3.5	21.30	21.30		8.32	8.32		32.67	32.67		94.9	94.1		6.92	6.89		4.15	4.14		4	
26/12/2015	6:21	Cloudy	Middle	3.5	19.30	19.30	19.30	8.43	8.43	8.43	32.25	32.25	32.26	74.6	74.2	74.3	5.68	5.66	5.66	4.25	4.14	4.13	4	4.50
	6:22		Middle	3.5	19.30	19.30		8.43	8.43		32.27	32.27		74.3	74.1		5.66	5.65		4.10	4.04		5	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at WSD19 - Sheung Wan
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	9:58	Fine	Middle	3.5	23.70	23.70	23.65	8.27	8.27	8.30	32.15	32.15	32.16	85.4	85.4	84.1	6.01	6.01	5.92	8.57	8.56	<u>8.56</u>	6	6.00
	10:00		Middle	3.5	23.60	23.60		8.32	8.32		32.16	32.16		82.9	82.5		5.84	5.82		8.56	8.56		6	
2/12/2015	14:31	Fine	Middle	3.5	24.70	24.70	24.90	8.22	8.22	8.27	32.40	32.40	32.37	72.0	70.0	72.6	4.95	4.81	4.99	9.80	9.90	<u>9.90</u>	10	9.50
	14:33		Middle	3.5	25.10	25.10		8.32	8.32		32.33	32.33		74.0	74.3		5.09	5.11		9.94	9.94		9	
4/12/2015	13:13	Fine	Middle	3.5	23.30	23.30	23.30	8.34	8.34	8.34	32.50	32.50	32.49	70.1	69.9	69.6	4.96	4.96	4.92	5.83	5.83	5.84	2	2.00
	13:15		Middle	3.5	23.30	23.30		8.34	8.34		32.48	32.48		69.5	68.8		4.91	4.86		5.84	5.84		2	
7/12/2015	13:56	Fine	Middle	3.5	22.20	22.20	22.15	8.34	8.34	8.37	33.00	33.00	33.01	86.9	85.0	83.5	6.26	6.12	6.01	8.72	8.62	<u>8.61</u>	10	9.50
	13:58		Middle	3.5	22.10	22.10		8.40	8.40		33.01	33.01		81.6	80.5		5.88	5.79		8.55	8.55		9	
9/12/2015	15:02	Rainy	Middle	3.5	21.00	21.60	21.45	8.32	8.32	8.34	32.73	32.73	32.77	68.4	67.1	67.4	4.98	4.89	4.86	6.71	6.70	6.69	5	5.50
	15:04		Middle	3.5	21.60	21.60		8.36	8.36		32.80	32.80		66.2	68.0		4.82	4.73		6.69	6.65		6	
11/12/2015	15:37	Fine	Middle	3.5	22.60	22.60	22.65	8.30	8.30	8.32	32.92	32.92	32.91	78.4	77.8	77.3	5.60	5.55	5.52	5.75	5.67	5.78	2	2.50
	15:39		Middle	3.5	22.70	22.70		8.34	8.34		32.90	32.90		76.6	76.3		5.47	5.45		5.96	5.75		3	
14/12/2015	8:10	Cloudy	Middle	3.5	21.70	21.70	21.70	8.34	8.34	8.35	32.97	32.97	32.97	84.0	85.1	84.6	6.09	6.17	6.14	8.01	8.00	8.00	7	7.50
	8:12		Middle	3.5	21.70	21.70		8.36	8.36		32.97	32.97		85.0	84.2		6.17	6.11		8.00	8.00		8	
16/12/2015	9:42	Fine	Middle	3.0	19.90	19.90	19.80	8.37	83.70	27.22	32.83	32.85	32.93	68.1	67.5	67.4	5.12	5.07	5.07	8.91	8.90	<u>8.88</u>	7	6.50
	9:44		Middle	3.0	19.70	19.70		8.40	8.40		33.01	33.01		67.1	66.9		5.04	5.03		8.90	8.80		6	
18/12/2015	9:46	Fine	Middle	3.5	18.50	18.50	18.35	8.15	8.15	8.20	32.69	32.69	32.79	73.4	72.5	72.2	5.66	5.59	5.57	8.49	8.53	<u>8.58</u>	8	8.00
	9:48		Middle	3.5	18.20	18.20		8.24	8.24		32.88	32.88		71.7	71.0		5.53	5.48		8.62	8.66		8	
21/12/2015	15:30	Fine	Middle	3.5	20.50	20.50	20.60	8.30	8.30	8.33	32.95	32.95	32.95	92.4	91.8	92.2	6.83	6.79	6.81	6.69	6.55	6.55	4	4.00
	15:32		Middle	3.5	20.70	20.70		8.35	8.35		32.94	32.94		91.8	92.6		6.79	6.84		6.50	6.46		4	
23/12/2015	15:52	Cloudy	Middle	3.5	20.80	20.80	20.85	8.15	8.15	8.21	32.82	32.79	32.79	91.3	87.7	86.8	6.72	6.46	6.39	8.25	8.26	<u>8.24</u>	6	6.00
	15:54		Middle	3.5	20.90	20.90		8.26	8.26		32.77	32.77		84.9	83.1		6.25	6.12		8.26	8.19		6	
26/12/2015	5:03	Cloudy	Middle	2.5	19.00	19.00	19.05	8.42	8.42	8.42	32.43	32.43	32.43	83.7	83.9	84.3	6.40	6.42	6.44	8.01	8.03	7.98	5	4.50
	5:04		Middle	2.5	19.10	19.10		8.42	8.42		32.42	32.42		84.7	84.8		6.47	6.48		7.90	7.98		4	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at C7 - Windsor House
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids	
			m		°C		-		ppt		%		mg/L		NTU		mg/L	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
30/11/2015	2:02	Fine	Middle	-	22.90	22.90	8.37	8.37	32.62	32.62	77.4	77.2	5.52	5.51	3.46	3.17	2	2.00
	2:03		Middle	-	22.80	22.80	8.38	8.38	32.62	32.62	78.7	78.9	5.61	5.63	3.03	3.08	2	
2/12/2015	4:13	Cloudy	Middle	-	23.50	23.50	8.37	8.37	32.46	32.46	75.5	77.7	5.32	5.48	3.96	3.94	3	3.00
	4:14		Middle	-	23.50	23.50	8.36	8.36	32.48	32.48	77.1	76.8	5.44	5.41	3.86	3.99	3	
4/12/2015	3:00	Cloudy	Middle	-	21.60	21.60	8.38	8.38	32.67	32.67	81.5	82.2	5.98	6.00	3.86	3.88	3	3.50
	3:01		Middle	-	21.40	21.40	8.41	8.41	32.69	32.69	82.3	81.6	6.01	5.96	3.97	3.93	4	
7/12/2015	10:40	Fine	Middle	-	22.50	22.50	8.42	8.42	32.97	32.97	88.6	89.9	6.36	6.44	6.08	6.12	4	4.00
	10:42		Middle	-	22.30	22.30	8.43	8.43	32.99	32.99	88.0	87.5	6.31	6.27	6.13	6.14	4	
9/12/2015	2:20	Cloudy	Middle	-	20.80	20.80	8.44	8.44	33.13	33.13	74.0	75.9	5.53	5.61	4.02	3.81	2	2.50
	2:21		Middle	-	20.60	20.60	8.46	8.46	33.15	33.15	75.7	76.2	5.59	5.63	3.72	3.69	3	
12/12/2015	1:55	Cloudy	Middle	-	21.00	21.00	8.40	8.40	32.84	32.84	79.6	80.0	5.86	5.89	3.44	3.01	<2	<2
	1:56		Middle	-	21.00	21.00	8.40	8.40	32.85	32.85	80.2	81.2	5.90	5.98	2.91	2.94	<2	
14/12/2015	2:30	Cloudy	Middle	-	21.30	21.30	8.31	8.31	32.89	32.89	73.0	74.8	5.34	5.48	3.17	3.23	3	4.00
	2:31		Middle	-	21.20	21.20	8.32	8.32	32.89	32.89	76.1	74.7	5.57	5.47	3.28	3.26	5	
16/12/2015	2:24	Fine	Middle	-	18.50	18.50	8.42	8.42	33.01	33.01	79.7	79.9	6.14	6.16	7.03	7.05	4	3.00
	2:25		Middle	-	18.40	18.40	8.43	8.43	33.01	33.01	80.0	79.7	6.17	6.15	6.47	6.49	2	
18/12/2015	4:05	Fine	Middle	-	16.10	16.10	8.47	8.47	33.00	33.00	79.9	80.3	6.47	6.49	5.61	5.67	6	5.50
	4:06		Middle	-	16.00	16.00	8.48	8.48	33.00	33.00	80.6	80.3	6.52	6.50	5.68	5.71	5	
21/12/2015	10:30	Cloudy	Middle	-	20.80	20.80	8.37	8.37	32.68	32.68	86.0	86.6	6.35	6.40	8.34	8.30	4	3.50
	10:32		Middle	-	20.80	20.80	8.38	8.38	32.68	32.68	87.3	87.3	6.45	6.45	8.29	8.26	3	
23/12/2015	11:02	Fine	Middle	-	21.20	21.20	8.30	8.30	32.62	32.62	78.7	79.3	5.78	5.82	5.64	5.86	7	6.50
	11:04		Middle	-	21.20	21.20	8.33	8.33	32.63	32.63	79.3	79.5	5.82	5.83	6.00	6.09	6	
26/12/2015	1:30	Cloudy	Middle	-	19.40	19.40	8.31	8.31	32.48	32.48	78.4	78.5	5.96	5.96	3.07	3.03	4	3.50
	1:31		Middle	-	19.40	19.40	8.32	8.32	32.49	32.49	78.8	78.8	5.98	5.99	2.97	2.95	3	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.



Water Monitoring Result at C1 - HKCEC
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	4:56	Fine	Middle	2.0	22.80	22.80	22.80	8.41	8.41	8.41	31.94	31.94	31.94	77.0	76.1	76.2	5.52	5.45	5.46	4.94	4.89	4.99	4	4.00
	4:57		Middle	2.0	22.80	22.80		8.41	8.41		31.94	31.94		75.5	76.1		5.41	5.46		5.07	5.05		4	
2/12/2015	5:09	Cloudy	Middle	2.5	23.20	23.20	23.20	8.28	8.28	8.29	31.58	31.58	31.58	73.1	73.7	73.2	5.20	5.26	5.21	4.98	4.82	4.90	4	4.00
	5:10		Middle	2.5	23.20	23.20		8.30	8.30		31.58	31.58		73.4	72.6		5.22	5.17		4.84	4.96		4	
4/12/2015	5:01	Cloudy	Middle	2.5	21.60	21.60	21.55	8.32	8.32	8.33	31.57	31.57	31.58	73.5	74.3	73.7	5.40	5.46	5.42	3.58	3.52	3.54	3	3.00
	5:02		Middle	2.5	21.50	21.50		8.33	8.33		31.59	31.59		73.8	73.2		5.42	5.38		3.50	3.55		3	
7/12/2015	9:57	Fine	Middle	2.5	21.70	21.70	21.70	8.48	8.48	8.49	33.16	33.16	33.16	76.1	75.1	74.9	5.52	5.45	5.44	6.69	6.77	6.74	4	5.00
	9:59		Middle	2.5	21.70	21.70		8.49	8.49		33.16	33.16		74.3	74.1		5.39	5.38		6.77	6.74		6	
9/12/2015	2:55	Cloudy	Middle	2.0	20.90	20.90	20.85	8.39	8.39	8.40	32.57	32.57	32.57	75.9	76.6	76.6	5.62	5.67	5.67	3.30	3.32	3.28	2	2.50
	2:56		Middle	2.0	20.80	20.80		8.41	8.41		32.56	32.56		76.9	76.8		5.70	5.69		3.26	3.23		3	
12/12/2015	3:48	Cloudy	Middle	2.0	21.20	21.20	21.20	8.41	8.41	8.42	32.90	32.90	32.91	76.4	77.0	76.9	5.61	5.64	5.64	4.72	4.77	4.78	2	2.00
	3:49		Middle	2.0	21.20	21.20		8.42	8.42		32.91	32.91		77.3	76.8		5.67	5.63		4.81	4.83		2	
14/12/2015	4:51	Cloudy	Middle	2.0	21.50	21.50	21.50	8.43	8.43	8.44	32.94	32.94	32.95	77.5	77.9	77.8	5.65	5.68	5.67	6.57	6.49	6.47	4	4.00
	4:52		Middle	2.0	21.50	21.50		8.44	8.44		32.95	32.95		77.9	77.8		5.68	5.67		6.46	6.37		4	
16/12/2015	3:57	Fine	Middle	2.0	19.00	19.00	18.95	8.24	8.24	8.26	32.85	32.85	32.86	78.4	78.6	78.6	6.00	6.02	6.02	6.55	6.63	6.66	4	4.50
	3:58		Middle	2.0	18.90	18.90		8.28	8.28		32.86	32.86		79.0	78.3		6.05	5.99		6.66	6.79		5	
18/12/2015	5:47	Fine	Middle	2.5	15.20	15.20	15.15	8.26	8.26	8.30	32.31	32.31	32.33	74.0	74.7	74.6	5.99	6.06	6.04	5.80	5.91	5.91	5	5.50
	5:48		Middle	2.5	15.10	15.10		8.34	8.34		32.34	32.34		74.9	74.8		6.06	6.05		5.95	5.97		6	
21/12/2015	9:20	Cloudy	Middle	2.5	19.90	19.90	19.90	8.43	8.43	8.43	32.98	32.98	32.98	86.3	87.5	87.0	6.47	6.53	6.50	7.01	7.00	7.00	5	5.00
	9:22		Middle	2.5	19.90	19.90		8.43	8.43		32.98	32.98		87.2	86.9		6.51	6.49		6.98	6.99		5	
23/12/2015	10:18	Fine	Middle	2.5	20.40	20.40	20.45	8.41	8.41	8.42	32.79	32.79	32.81	82.2	81.3	81.1	6.11	6.05	6.03	5.92	5.65	5.76	6	5.50
	10:20		Middle	2.5	20.50	20.50		8.42	8.42		32.82	32.82		80.7	80.1		6.00	5.95		5.70	5.75		5	
26/12/2015	3:38	Cloudy	Middle	2.0	19.40	19.40	19.40	8.09	8.09	8.11	31.85	31.85	31.86	73.3	73.5	73.4	5.58	5.60	5.59	11.40	11.38	<u>11.37</u>	4	4.50
	3:39		Middle	2.0	19.40	19.40		8.13	8.13		31.86	31.86		73.6	73.3		5.61	5.58		11.35	11.33		5	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.



Water Monitoring Result at P1 - HKCEC Phase I
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	4:25	Fine	Middle	2.0	23.00	23.00	22.98	8.39	8.39	8.38	31.79	31.79	31.79	75.5	75.8	75.6	5.40	5.42	5.40	4.88	4.91	4.94	4	5.00
	4:26		Middle	2.0	22.90	23.00		8.36	8.36		31.78	31.78		75.6	75.3		5.41	5.38		4.97	4.99		6	
2/12/2015	4:45	Cloudy	Middle	2.5	23.20	23.20	23.20	8.38	8.38	8.39	32.39	32.39	32.40	76.4	76.8	76.2	5.41	5.44	5.40	5.79	5.81	5.78	4	3.50
	4:46		Middle	2.5	23.20	23.20		8.39	8.39		32.40	32.40		76.1	75.6		5.39	5.36		5.77	5.73		3	
4/12/2015	4:25	Cloudy	Middle	2.5	21.20	21.20	21.20	8.50	8.50	8.50	32.82	32.82	32.82	74.2	74.4	75.1	5.44	5.46	5.51	4.35	4.50	4.49	4	3.50
	4:26		Middle	2.5	21.20	21.20		8.50	8.50		32.82	32.82		75.4	76.5		5.53	5.62		4.39	4.71		3	
7/12/2015	9:41	Fine	Middle	2.5	21.10	21.20	21.13	8.41	8.41	8.43	32.94	32.94	32.95	76.4	74.9	74.5	5.60	5.49	5.46	6.42	6.36	6.38	4	4.50
	9:43		Middle	2.5	21.10	21.10		8.45	8.45		32.95	32.95		73.2	73.5		5.36	5.39		6.33	6.40		5	
9/12/2015	2:43	Cloudy	Middle	2.0	20.50	20.50	20.45	8.47	8.47	8.48	33.06	33.06	33.07	74.9	75.9	75.4	5.57	5.64	5.63	3.48	3.54	3.56	3	3.00
	2:44		Middle	2.0	20.40	20.40		8.48	8.48		33.07	33.07		75.5	75.1		5.61	5.68		3.59	3.63		3	
12/12/2015	3:35	Cloudy	Middle	2.0	21.10	21.10	21.05	8.14	8.14	8.18	32.77	32.77	32.77	75.5	76.3	75.8	5.56	5.61	5.58	6.77	6.80	6.80	<2	<2
	3:36		Middle	2.0	21.00	21.00		8.22	8.20		32.77	32.78		76.0	75.5		5.57	5.56		6.83	6.81		<2	
14/12/2015	4:30	Cloudy	Middle	2.0	21.30	21.30	21.30	8.18	8.18	8.23	32.32	32.32	32.35	71.9	72.7	72.5	5.28	5.34	5.33	4.50	4.43	4.51	4	4.00
	4:31		Middle	2.0	21.30	21.30		8.28	8.28		32.38	32.38		72.9	72.6		5.35	5.33		4.54	4.58		4	
16/12/2015	3:31	Fine	Middle	2.0	18.80	18.80	18.75	8.44	8.44	8.45	33.04	33.04	33.05	77.4	77.5	77.4	5.93	5.94	5.94	7.48	7.50	7.40	4	4.00
	3:32		Middle	2.0	18.70	18.70		8.46	8.45		33.05	33.05		77.5	77.3		5.94	5.93		7.32	7.30		4	
18/12/2015	5:23	Fine	Middle	2.5	15.90	15.90	15.85	8.45	8.45	8.47	33.11	33.11	33.11	75.7	76.7	77.0	6.15	6.21	6.24	6.51	6.75	6.66	5	5.50
	5:24		Middle	2.5	15.80	15.80		8.49	8.49		33.11	33.11		77.7	78.0		6.29	6.32		6.70	6.66		6	
21/12/2015	9:00	Cloudy	Middle	2.5	19.80	19.80	19.80	8.39	8.39	8.40	32.99	32.99	32.99	91.0	91.9	91.6	6.84	6.90	6.88	6.18	6.16	6.16	4	4.00
	9:02		Middle	2.5	19.80	19.80		8.41	8.41		32.99	32.99		91.3	92.2		6.86	6.93		6.15	6.14		4	
23/12/2015	10:02	Fine	Middle	2.5	20.70	20.70	20.80	8.33	8.33	8.35	32.89	32.89	32.85	77.7	77.1	76.7	5.74	5.70	5.71	7.39	7.42	7.39	7	6.00
	10:04		Middle	2.5	20.90	20.90		8.36	8.36		32.80	32.80		77.3	74.8		5.71	5.67		7.38	7.36		5	
26/12/2015	3:18	Cloudy	Middle	2.0	19.20	19.20	19.20	8.33	8.33	8.35	32.48	32.48	32.48	74.7	75.1	74.8	5.69	5.72	5.70	6.97	7.21	7.19	5	6.00
	3:19		Middle	2.0	19.20	19.20		8.36	8.36		32.49	32.48		74.6	74.6		5.70	5.68		7.31	7.25		7	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.



Water Monitoring Result at P3 - APA
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
30/11/2015	4:32	Fine	Middle	2.0	23.00	23.00	22.98	8.42	8.42	8.42	31.96	31.96	31.97	77.2	77.4	77.4	5.52	5.63	5.61	5.61	5.57	5.54	4	4.00
	4:33		Middle	2.0	22.90	23.00		8.42	8.42		31.97	31.97		77.4	77.7		5.63	5.66		5.50	5.48		4	
2/12/2015	4:52	Cloudy	Middle	2.5	23.20	23.20	23.20	8.42	8.42	8.42	32.41	32.41	32.42	72.4	73.9	73.1	5.13	5.24	5.18	4.69	4.65	4.59	3	3.00
	4:53		Middle	2.5	23.20	23.20		8.42	8.42		32.42	32.42		73.1	72.9		5.18	5.17		4.53	4.50		3	
4/12/2015	4:31	Cloudy	Middle	2.5	21.30	21.30	21.30	8.47	8.47	8.47	32.85	32.85	32.85	77.0	77.5	77.3	5.64	5.68	5.66	3.84	3.86	3.85	2	2.50
	4:32		Middle	2.5	21.30	21.30		8.47	8.47		32.85	32.85		77.1	77.6		5.64	5.68		3.90	3.81		3	
7/12/2015	9:45	Fine	Middle	2.5	21.10	21.10	21.10	8.46	8.46	8.47	33.09	33.09	33.09	78.0	76.1	75.7	5.69	5.58	5.55	6.11	6.03	5.75	4	5.00
	9:47		Middle	2.5	21.10	21.10		8.47	8.47		33.09	33.09		75.0	73.8		5.50	5.41		5.47	5.40		6	
9/12/2015	2:48	Cloudy	Middle	2.0	20.50	20.50	20.45	8.51	8.51	8.52	32.73	32.73	32.73	76.6	75.5	75.8	5.69	5.62	5.63	3.62	3.60	3.64	2	2.00
	2:49		Middle	2.0	20.40	20.40		8.52	8.52		32.73	32.73		75.2	75.7		5.59	5.63		3.65	3.69		2	
12/12/2015	3:38	Cloudy	Middle	2.0	21.10	21.00	21.08	8.45	8.45	8.45	33.05	33.05	33.05	73.3	73.6	73.5	5.38	5.40	5.39	4.89	4.66	4.61	2	2.00
	3:39		Middle	2.0	21.10	21.10		8.45	8.45		33.05	33.05		73.7	73.2		5.41	5.37		4.48	4.40		<2	
14/12/2015	4:35	Cloudy	Middle	2.0	21.40	21.40	21.40	8.39	8.39	8.40	32.92	32.92	32.93	76.2	76.0	75.9	5.60	5.56	5.56	5.86	5.92	5.93	4	5.00
	4:36		Middle	2.0	21.40	21.40		8.40	8.40		32.92	32.94		75.9	75.6		5.55	5.54		5.97	5.95		6	
16/12/2015	3:36	Fine	Middle	2.0	18.80	18.80	18.80	8.49	8.49	8.49	33.10	33.10	33.10	78.2	78.3	78.1	5.98	5.99	5.98	6.53	6.56	6.57	5	4.50
	3:37		Middle	2.0	18.80	18.80		8.49	8.49		33.10	33.10		78.0	77.8		5.97	5.96		6.59	6.61		4	
18/12/2015	5:28	Fine	Middle	2.5	16.30	16.30	16.20	8.51	8.51	8.52	33.09	33.09	33.10	76.9	76.9	77.1	6.18	6.19	6.20	5.10	5.12	5.34	5	5.50
	5:29		Middle	2.5	16.10	16.10		8.53	8.53		33.10	33.10		77.2	77.2		6.22	6.22		5.56	5.58		6	
21/12/2015	9:05	Cloudy	Middle	2.5	19.80	19.80	19.80	8.42	8.42	8.42	32.99	32.99	33.00	89.8	89.9	89.2	6.74	6.75	6.70	6.96	6.94	6.94	5	4.50
	9:07		Middle	2.5	19.80	19.80		8.42	8.42		33.00	33.00		89.1	87.9		6.69	6.60		6.93	6.93		4	
23/12/2015	10:06	Fine	Middle	2.5	20.50	20.50	20.55	8.38	8.38	8.39	32.83	32.83	32.83	81.5	80.0	79.1	6.05	5.93	5.87	5.54	5.58	5.52	4	5.00
	10:08		Middle	2.5	20.60	20.60		8.39	8.39		32.82	32.82		78.3	76.7		5.81	5.69		5.47	5.47		6	
26/12/2015	3:22	Cloudy	Middle	2.0	19.20	19.20	19.20	8.38	8.38	8.39	32.53	32.53	32.54	76.4	76.5	76.2	5.82	5.82	5.80	4.62	4.56	4.61	4	5.00
	3:23		Middle	2.0	19.20	19.20		8.40	8.40		32.54	32.54		76.0	75.7		5.79	5.76		4.66	4.59		6	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at P4 - SOC
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	4:41	Fine	Middle	2.0	22.80	22.80	22.80	8.43	8.43	8.43	31.97	31.97	31.98	78.9	79.6	79.5	5.65	5.70	5.70	4.86	4.90	4.94	3	3.50
	4:42		Middle	2.0	22.80	22.80		8.43	8.43		31.99	31.99		79.9	79.7		5.72	5.71		4.98	5.00		4	
2/12/2015	4:57	Cloudy	Middle	2.5	23.10	23.10	23.10	8.43	8.43	8.43	32.43	32.43	32.43	76.8	75.8	76.7	5.46	5.38	5.44	4.60	4.62	4.46	3	3.50
	4:58		Middle	2.5	23.10	23.10		8.43	8.43		32.43	32.43		77.0	77.1		5.46	5.47		4.32	4.30		4	
4/12/2015	4:42	Cloudy	Middle	2.5	21.20	21.20	21.20	8.44	8.44	8.44	32.74	32.74	32.74	74.1	74.6	74.4	5.43	5.48	5.46	4.01	4.10	4.05	4	3.50
	4:43		Middle	2.5	21.20	21.20		8.44	8.44		32.74	32.74		74.3	74.6		5.45	5.48		4.06	4.02		3	
7/12/2015	9:49	Fine	Middle	2.5	21.20	21.20	21.20	8.47	8.47	8.47	33.10	33.10	33.10	76.3	74.8	75.0	5.58	5.47	5.48	5.98	5.99	5.99	5	5.00
	9:51		Middle	2.5	21.20	21.20		8.47	8.47		33.10	33.10		74.5	74.3		5.45	5.43		6.00	6.00		5	
9/12/2015	2:51	Cloudy	Middle	2.0	20.40	20.40	20.35	8.53	8.53	8.53	32.60	32.60	32.60	77.0	76.9	77.2	5.74	5.73	5.76	4.03	4.07	4.05	3	3.00
	2:52		Middle	2.0	20.30	20.30		8.53	8.53		32.60	32.60		77.3	77.7		5.77	5.80		4.09	4.00		3	
12/12/2015	3:41	Cloudy	Middle	2.0	21.10	21.10	21.10	8.47	8.47	8.47	33.06	33.06	33.06	80.2	80.5	80.1	5.89	5.91	5.89	6.78	6.80	6.77	<2	<2
	3:42		Middle	2.0	21.10	21.10		8.47	8.47		33.06	33.06		80.1	79.5		5.89	5.85		6.76	6.73		<2	
14/12/2015	4:40	Cloudy	Middle	2.0	21.30	21.30	21.30	8.48	8.47	8.47	32.95	32.95	32.95	80.2	80.5	80.5	5.86	5.89	5.89	5.84	5.80	5.76	5	4.50
	4:41		Middle	2.0	21.30	21.30		8.47	8.47		32.95	32.95		80.4	80.9		5.88	5.92		5.71	5.69		4	
16/12/2015	3:44	Fine	Middle	2.0	18.80	18.80	18.80	8.50	8.50	8.51	33.12	33.12	33.12	82.4	82.3	82.0	6.31	6.30	6.28	5.69	5.74	5.65	4	4.50
	3:45		Middle	2.0	18.80	18.80		8.51	8.51		33.12	33.12		82.0	81.2		6.28	6.22		5.57	5.61		5	
18/12/2015	5:32	Fine	Middle	2.5	16.30	16.30	16.20	8.54	8.54	8.54	32.91	32.93	32.93	80.5	81.7	81.5	6.49	6.59	6.58	6.39	6.42	6.46	4	5.00
	5:33		Middle	2.5	16.10	16.10		8.54	8.54		32.93	32.93		81.6	82.1		6.59	6.63		6.50	6.54		6	
21/12/2015	9:10	Cloudy	Middle	2.5	19.90	19.90	19.88	8.42	8.42	8.42	32.98	32.98	32.99	87.0	87.5	87.0	6.52	6.56	6.52	8.02	8.01	8.00	6	6.00
	9:12		Middle	2.5	19.90	19.80		8.41	8.41		32.99	32.99		87.2	86.1		6.54	6.46		8.00	7.97		6	
23/12/2015	10:10	Fine	Middle	2.5	20.50	20.50	20.55	8.40	8.40	8.40	32.80	32.80	32.81	85.0	82.6	81.8	6.31	6.12	6.07	6.73	6.71	6.81	8	7.00
	10:12		Middle	2.5	20.60	20.60		8.40	8.40		32.81	32.81		80.1	79.5		5.94	5.90		6.89	6.90		6	
26/12/2015	3:27	Cloudy	Middle	2.0	19.10	19.10	19.10	8.41	8.41	8.41	32.53	32.53	32.53	77.7	78.3	78.4	5.93	5.98	5.98	5.46	5.40	5.42	6	5.00
	3:28		Middle	2.0	19.10	19.10		8.41	8.41		32.53	32.53		78.7	78.8		6.01	6.01		5.36	5.45		4	

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at P5 - WCT / RT / IT
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	4:50	Fine	Middle	2.0	23.00	23.00	22.95	8.43	8.43	8.44	31.98	31.98	31.98	74.8	76.2	75.9	5.37	5.46	5.44	5.52	5.50	5.51	4	4.00
	4:51		Middle	2.0	22.90	22.90		8.44	8.44		31.98	31.98		76.2	76.4		5.46	5.46		5.54	5.46		4	
2/12/2015	5:06	Cloudy	Middle	2.5	23.00	23.00	23.00	8.44	8.44	8.44	32.38	32.38	32.41	72.9	74.7	73.8	5.26	5.31	5.28	5.17	5.15	5.16	4	4.00
	5:07		Middle	2.5	23.00	23.00		8.44	8.44		32.43	32.43		73.9	73.6		5.28	5.27		5.10	5.20		4	
4/12/2015	4:55	Cloudy	Middle	2.5	21.50	21.50	21.50	8.49	8.49	8.49	32.82	32.82	32.83	78.7	78.4	78.7	5.76	5.72	5.75	4.40	4.42	4.37	3	3.50
	4:56		Middle	2.5	21.50	21.50		8.49	8.49		32.83	32.83		78.7	78.8		5.75	5.76		4.36	4.31		4	
7/12/2015	9:53	Fine	Middle	2.5	21.60	21.60	21.55	8.47	8.47	8.48	33.16	33.16	33.17	78.0	77.1	77.0	5.65	5.60	5.59	19.99	18.90	19.86	20	19.50
	9:55		Middle	2.5	21.50	21.50		8.48	8.48		33.17	33.17		76.6	76.3		5.57	5.54		20.50	20.04		19	
9/12/2015	2:53	Cloudy	Middle	2.0	20.50	20.50	20.45	8.53	8.53	8.53	32.66	32.66	32.67	77.3	77.6	77.5	5.75	5.79	5.77	3.83	3.67	3.73	<2	<2
	2:54		Middle	2.0	20.40	20.40		8.53	8.53		32.67	32.67		77.5	77.4		5.77	5.76		3.70	3.72		<2	
12/12/2015	3:45	Cloudy	Middle	2.0	21.10	21.10	21.10	8.48	8.48	8.48	33.07	33.07	33.07	78.4	78.1	78.7	5.75	5.73	5.77	5.20	5.18	5.11	<2	<2
	3:46		Middle	2.0	21.10	21.10		8.48	8.48		33.07	33.07		79.0	79.2		5.80	5.81		5.00	5.06		<2	
14/12/2015	4:45	Cloudy	Middle	2.0	21.50	21.50	21.50	8.45	8.45	8.45	32.96	32.96	32.97	74.6	74.9	74.5	5.44	5.46	5.43	5.95	5.92	5.81	6	6.00
	4:46		Middle	2.0	21.50	21.50		8.45	8.45		32.97	32.97		74.3	74.0		5.42	5.39		5.69	5.66		6	
16/12/2015	3:49	Fine	Middle	2.0	18.80	18.80	18.80	8.51	8.51	8.51	33.11	33.11	33.11	78.5	78.9	78.8	6.01	6.04	6.04	4.66	4.64	4.68	4	3.50
	3:50		Middle	2.0	18.80	18.80		8.51	8.51		33.11	33.11		79.0	78.8		6.05	6.04		4.69	4.71		3	
18/12/2015	5:40	Fine	Middle	2.5	15.60	15.60	15.55	8.55	8.55	8.55	32.90	32.90	32.89	80.0	80.1	80.0	6.54	6.54	6.53	4.61	4.59	4.68	4	4.50
	5:41		Middle	2.5	15.50	15.50		8.55	8.55		32.88	32.88		79.8	79.9		6.52	6.53		4.70	4.80		5	
21/12/2015	9:15	Cloudy	Middle	2.5	19.90	19.90	19.90	8.43	8.43	8.43	32.98	32.98	32.98	91.5	91.1	90.9	6.85	6.83	6.82	6.40	6.45	6.44	5	4.50
	9:17		Middle	2.5	19.90	19.90		8.43	8.43		32.97	32.97		90.6	90.5		6.80	6.79		6.44	6.45		4	
23/12/2015	10:14	Fine	Middle	2.5	20.50	20.50	20.50	8.41	8.41	8.41	32.83	32.83	32.83	82.1	82.7	81.9	6.09	6.14	6.08	7.07	7.07	7.07	8	7.50
	10:16		Middle	2.5	20.50	20.50		8.41	8.41		32.83	32.83		81.9	80.7		6.08	5.99		7.07	7.07		7	
26/12/2015	3:33	Cloudy	Middle	2.0	19.20	19.20	19.20	8.42	8.42	8.42	32.54	32.54	32.54	76.9	77.1	77.0	5.86	5.87	5.87	4.75	4.69	4.74	7	6.00
	3:34		Middle	2.0	19.20	19.20		8.42	8.42		32.54	32.54		77.0	77.0		5.87	5.87		4.71	4.80		5	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.



Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	3:19	Fine	Middle	3.5	22.90	22.90	22.85	8.26	8.26	8.27	32.33	32.33	32.36	79.0	79.2	79.2	5.65	5.67	5.67	4.71	4.87	4.88	3	3.50
	3:20		Middle	3.5	22.80	22.80		8.28	8.27		32.39	32.39		79.4	79.2		5.69	5.67		4.97	4.95		4	
2/12/2015	2:08	Cloudy	Middle	3.5	23.30	23.30	23.30	8.31	8.31	8.33	32.60	32.60	32.61	76.7	77.2	76.8	5.42	5.46	5.44	5.61	5.67	5.74	5	5.00
	2:09		Middle	3.5	23.30	23.30		8.34	8.34		32.61	32.61		77.0	76.4		5.45	5.41		5.82	5.85		5	
4/12/2015	3:30	Cloudy	Middle	3.5	21.40	21.40	21.30	8.24	8.24	8.26	32.62	32.62	32.65	76.7	76.9	76.4	5.52	5.54	5.55	2.66	2.72	2.75	2	2.00
	3:31		Middle	3.5	21.20	21.20		8.28	8.28		32.68	32.68		75.9	76.0		5.55	5.58		2.78	2.82		2	
7/12/2015	10:16	Fine	Middle	3.5	21.70	21.70	21.65	8.42	8.42	8.44	33.05	33.05	33.07	81.8	80.0	79.6	5.94	5.80	5.78	5.91	5.90	5.91	6	6.00
	10:18		Middle	3.5	21.60	21.60		8.46	8.46		33.09	33.09		78.7	77.8		5.72	5.65		5.92	5.91		6	
9/12/2015	2:00	Cloudy	Middle	3.0	20.50	20.50	20.40	8.36	8.36	8.40	32.74	32.74	32.74	76.1	76.4	76.5	5.66	5.69	5.69	5.03	5.10	4.93	4	3.00
	2:01		Middle	3.0	20.30	20.30		8.43	8.43		32.74	32.74		76.2	77.1		5.67	5.74		4.81	4.79		2	
12/12/2015	3:10	Cloudy	Middle	3.0	20.90	20.90	20.90	8.35	8.35	8.37	32.79	32.79	32.79	77.0	77.9	77.8	5.67	5.76	5.74	5.57	5.35	5.39	<2	≤2
	3:11		Middle	3.0	20.90	20.90		8.38	8.38		32.78	32.78		78.2	78.0		5.77	5.75		5.33	5.30		<2	
14/12/2015	3:50	Cloudy	Middle	2.5	21.30	21.30	21.30	8.36	8.36	8.36	31.78	31.78	31.79	70.3	70.4	70.7	5.20	5.20	5.22	3.85	3.87	3.80	3	2.50
	3:51		Middle	2.5	21.30	21.30		8.36	8.36		31.79	31.79		70.8	71.2		5.22	5.25		3.75	3.72		2	
16/12/2015	3:06	Fine	Middle	2.5	18.50	18.50	18.45	8.45	8.45	8.46	32.46	32.46	32.46	75.3	75.3	75.2	5.83	5.83	5.82	7.10	7.13	7.15	<2	≤2
	3:07		Middle	2.5	18.40	18.40		8.46	8.46		32.46	32.46		75.0	75.2		5.80	5.82		7.15	7.21		<2	
18/12/2015	4:45	Fine	Middle	3.5	16.20	16.20	16.20	8.38	8.38	8.39	33.09	33.09	33.10	77.0	76.9	76.7	6.20	6.20	6.18	8.55	8.90	8.78	4	4.00
	4:46		Middle	3.5	16.20	16.20		8.39	8.39		33.10	33.10		76.7	76.0		6.17	6.13		8.85	8.80		4	
21/12/2015	9:45	Cloudy	Middle	3.5	20.00	20.00	20.00	8.40	8.40	8.41	32.94	32.94	32.94	92.5	92.7	91.9	6.93	6.94	6.88	5.00	4.98	5.02	3	3.00
	9:47		Middle	3.5	20.00	20.00		8.42	8.42		32.94	32.94		91.3	91.1		6.84	6.82		5.04	5.05		3	
23/12/2015	10:38	Fine	Middle	3.5	20.60	20.60	20.65	8.35	8.35	8.37	32.83	32.83	32.82	88.4	86.4	85.9	6.54	6.40	6.36	6.29	6.29	6.29	4	4.50
	10:40		Middle	3.5	20.70	20.70		8.39	8.39		32.81	32.81		84.8	83.9		6.28	6.21		6.29	6.29		5	
26/12/2015	2:47	Cloudy	Middle	3.0	19.30	19.30	19.30	8.25	8.25	8.26	31.39	31.39	31.39	71.0	71.2	71.4	5.43	5.47	5.47	3.09	3.11	3.07	5	4.50
	2:48		Middle	3.0	19.30	19.30		8.26	8.26		31.39	31.39		71.8	71.7		5.49	5.49		3.05	3.01		4	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.



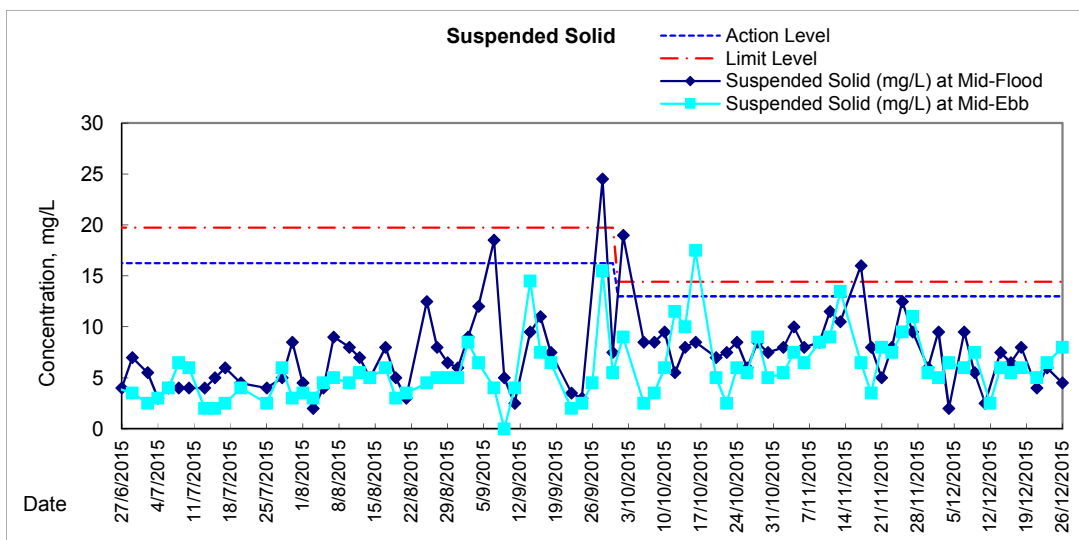
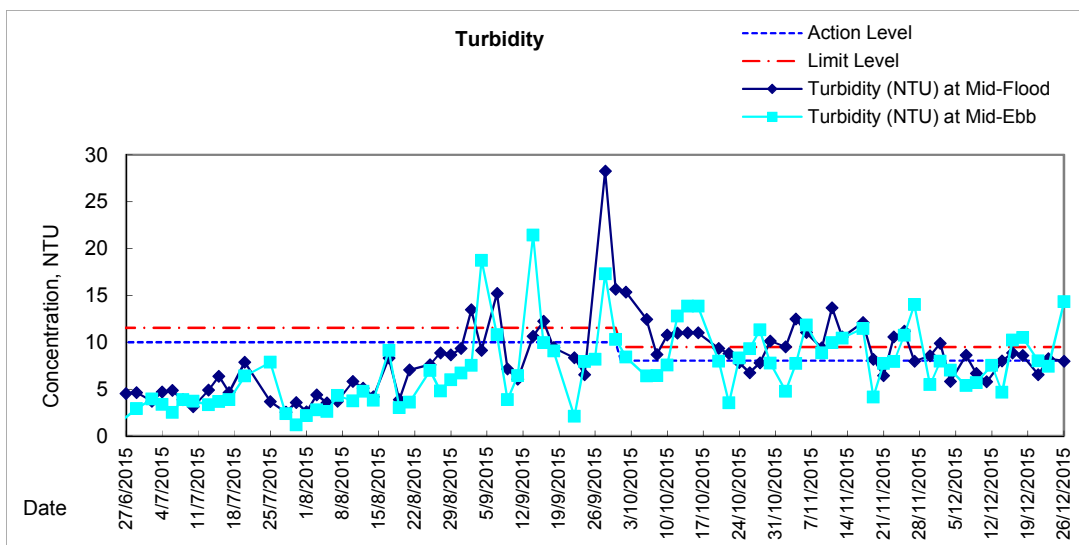
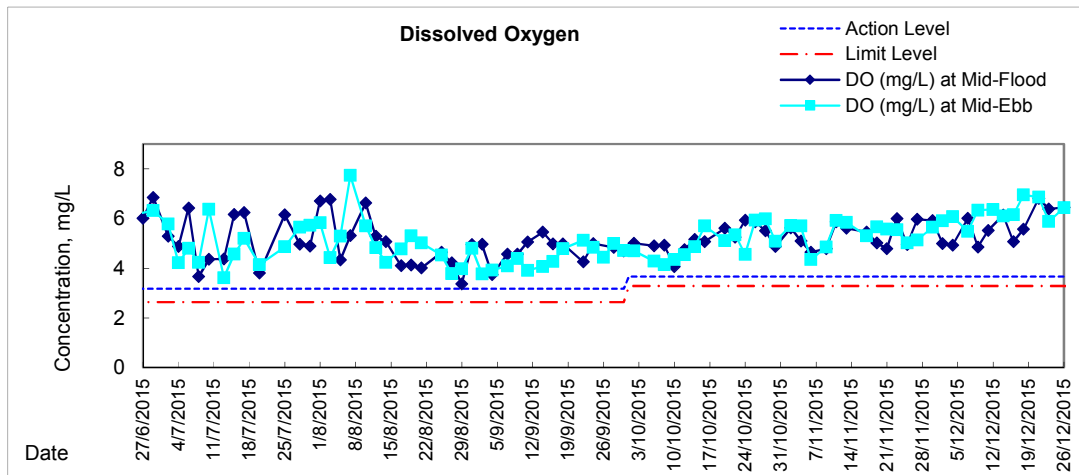
Water Monitoring Result at WSD19 - Sheung Wan
Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
30/11/2015	5:25	Fine	Middle	2.5	22.50	22.50	22.45	8.40	8.40	8.40	31.65	31.65	31.65	77.9	78.8	78.2	5.63	5.69	5.65	5.51	5.53	5.48	6	5.50
	5:26		Middle	2.5	22.40	22.40		8.40	8.40		31.65	31.65		78.5	77.4		5.67	5.59		5.48	5.39		5	
2/12/2015	2:58	Cloudy	Middle	3.0	23.20	23.20	23.20	8.14	8.14	8.16	32.16	32.16	32.17	82.6	84.1	83.2	5.87	5.97	5.91	8.02	7.98	7.99	4	5.00
	2:59		Middle	3.0	23.20	23.20		8.17	8.17		32.18	32.18		83.6	82.6		5.93	5.87		8.00	7.95		6	
4/12/2015	5:40	Cloudy	Middle	2.5	21.20	21.20	21.20	8.47	8.47	8.47	32.74	32.74	32.74	82.0	82.8	82.8	6.02	6.08	6.08	7.05	7.07	7.04	6	6.50
	5:41		Middle	2.5	21.20	21.20		8.47	8.47		32.74	32.74		83.4	83.0		6.12	6.09		7.02	7.00		7	
7/12/2015	8:38	Fine	Middle	3.5	21.40	21.40	21.30	8.57	8.56	8.56	33.34	33.34	33.35	74.5	75.0	75.1	5.44	5.48	5.49	5.32	5.39	5.38	6	6.00
	8:40		Middle	3.5	21.20	21.20		8.55	8.55		33.35	33.35		75.6	75.1		5.53	5.49		5.47	5.33		6	
9/12/2015	22:45	Cloudy	Middle	3.0	20.00	20.00	19.98	8.10	8.10	8.12	33.08	33.08	33.10	84.7	84.7	84.3	6.36	6.35	6.33	5.70	5.78	5.70	7	7.50
	22:46		Middle	3.0	19.90	20.00		8.14	8.14		33.11	33.11		84.3	83.5		6.33	6.28		5.66	5.64		8	
12/12/2015	0:01	Cloudy	Middle	2.5	20.80	20.80	20.75	8.20	8.20	8.21	33.47	33.47	33.47	85.7	86.1	86.4	6.31	6.34	6.36	7.59	7.55	7.54	3	2.50
	0:02		Middle	2.5	20.70	20.70		8.22	8.22		33.48	33.48		86.5	87.2		6.37	6.43		7.53	7.47		2	
14/12/2015	1:02	Cloudy	Middle	2.5	21.10	21.10	21.05	8.25	8.25	8.27	32.74	32.74	32.75	82.7	83.7	82.9	6.09	6.15	6.10	4.89	4.61	4.66	6	6.00
	1:03		Middle	2.5	21.00	21.00		8.28	8.28		32.75	32.75		82.5	82.5		6.07	6.08		4.58	4.55		6	
16/12/2015	4:20	Fine	Middle	2.5	18.70	18.70	18.70	8.27	8.27	8.28	32.96	32.96	32.97	80.8	79.4	79.9	6.21	6.11	6.15	10.27	10.29	<u>10.23</u>	5	5.50
	4:21		Middle	2.5	18.70	18.70		8.29	8.29		32.97	32.97		80.0	79.4		6.15	6.11		10.24	10.11		6	
18/12/2015	6:00	Fine	Middle	3.0	15.70	15.70	15.60	8.15	8.15	8.18	33.05	33.05	33.05	85.4	86.5	85.2	6.97	7.07	6.96	10.55	10.50	<u>10.51</u>	7	6.00
	6:01		Middle	3.0	15.50	15.50		8.20	8.20		33.05	33.05		84.5	84.2		6.90	6.88		10.48	10.52		5	
21/12/2015	8:00	Cloudy	Middle	3.5	19.70	19.70	19.65	8.22	8.22	8.27	32.96	32.96	32.96	91.5	90.5	91.0	6.90	6.83	6.86	8.01	8.01	8.01	5	5.00
	8:02		Middle	3.5	19.60	19.60		8.31	8.31		32.96	32.96		90.7	91.2		6.84	6.88		8.01	8.00		5	
23/12/2015	9:20	Fine	Middle	3.5	20.80	20.80	20.80	8.29	8.29	8.31	32.88	32.88	32.88	80.4	80.2	79.7	5.93	5.92	5.88	7.42	7.43	7.44	7	6.50
	9:22		Middle	3.5	20.80	20.80		8.32	8.32		32.87	32.87		79.6	78.7		5.87	5.81		7.44	7.45		6	
26/12/2015	0:02	Cloudy	Middle	2.5	19.20	19.20	19.20	7.98	7.98	7.99	32.44	32.44	32.46	84.3	85.3	84.5	6.42	6.50	6.44	14.29	14.32	<u>14.32</u>	8	8.00
	0:03		Middle	2.5	19.20	19.20		8.02	7.99		32.47	32.47		84.9	83.4		6.47	6.36		14.36	14.30		8	

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.

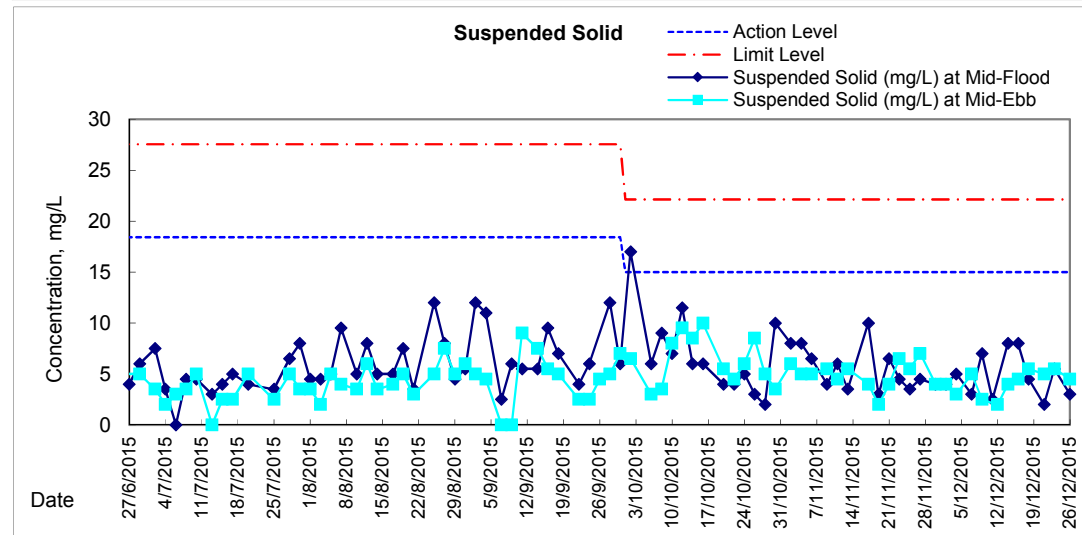
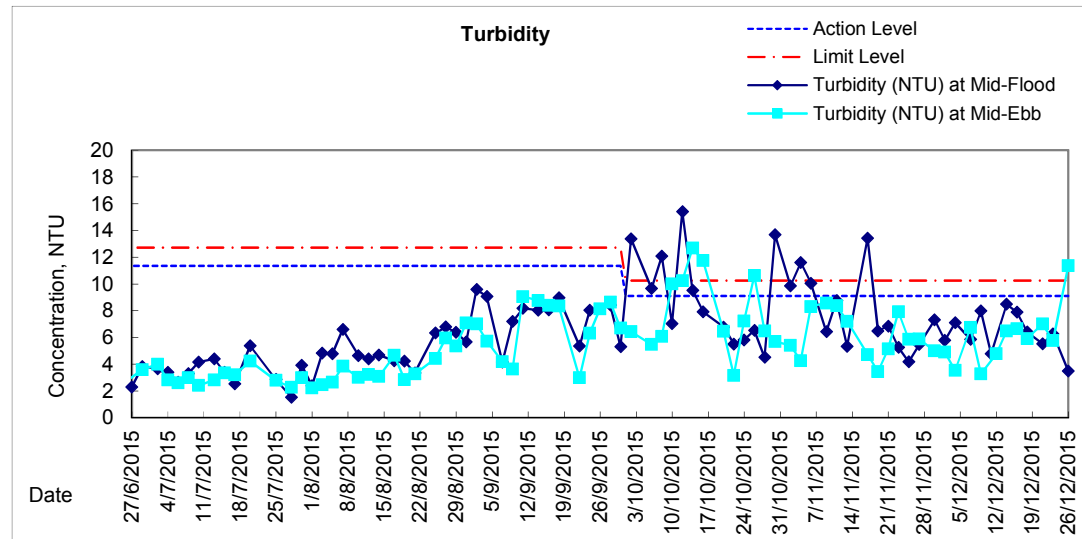
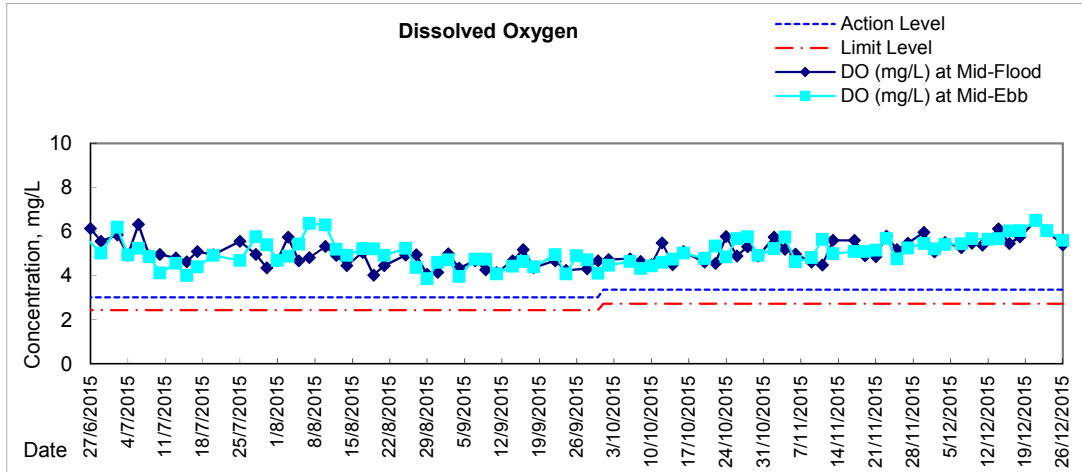


Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan



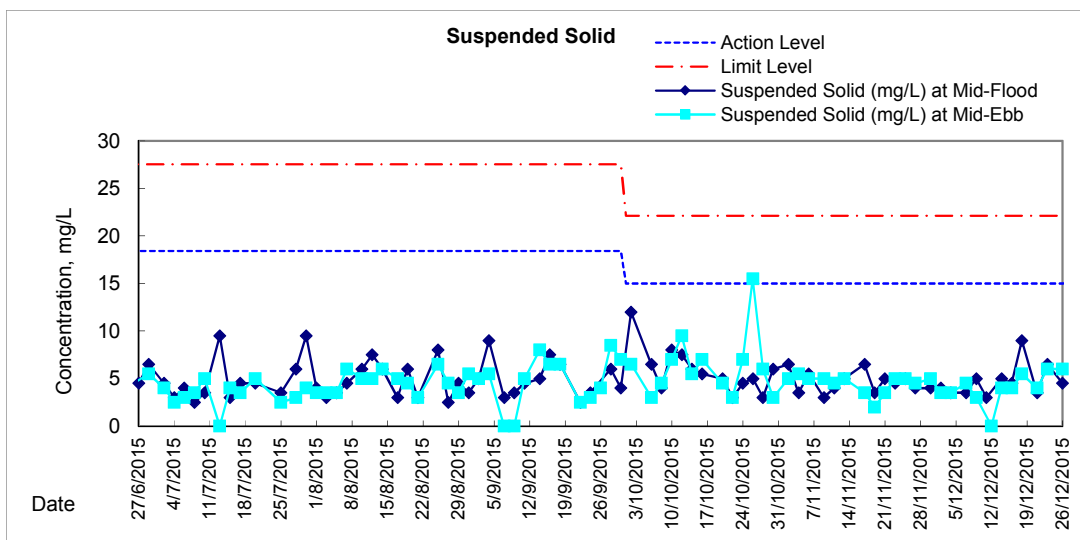
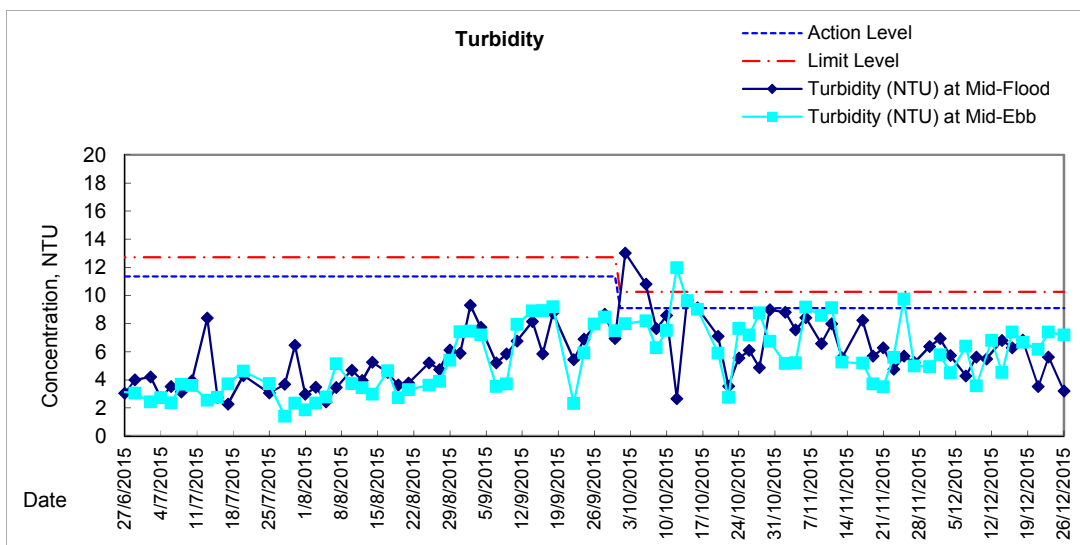
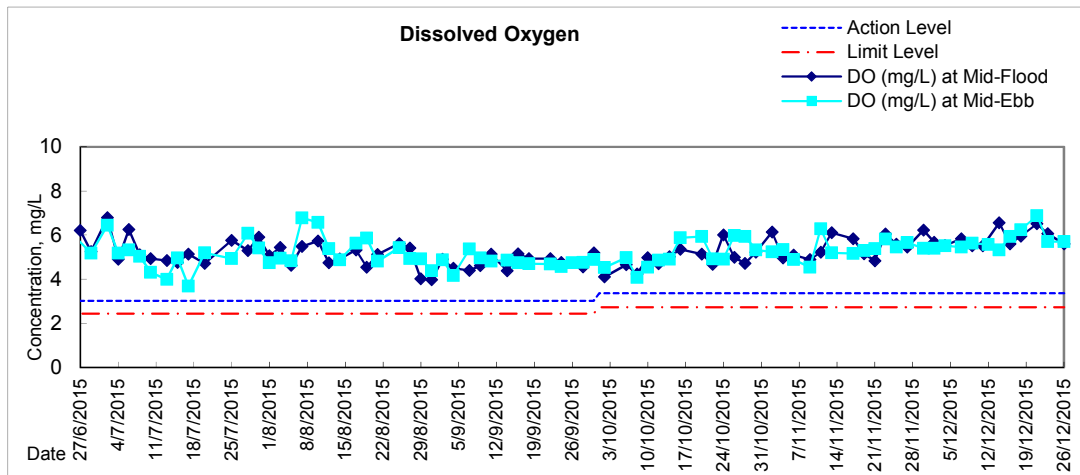


Graphic Presentation of Water Quality Result of C1 - HKCEC



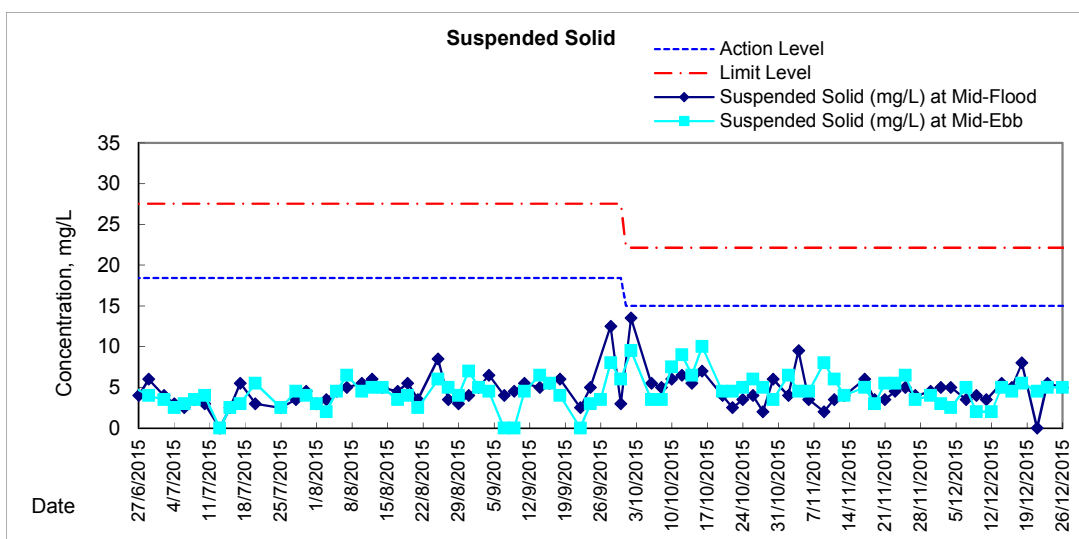
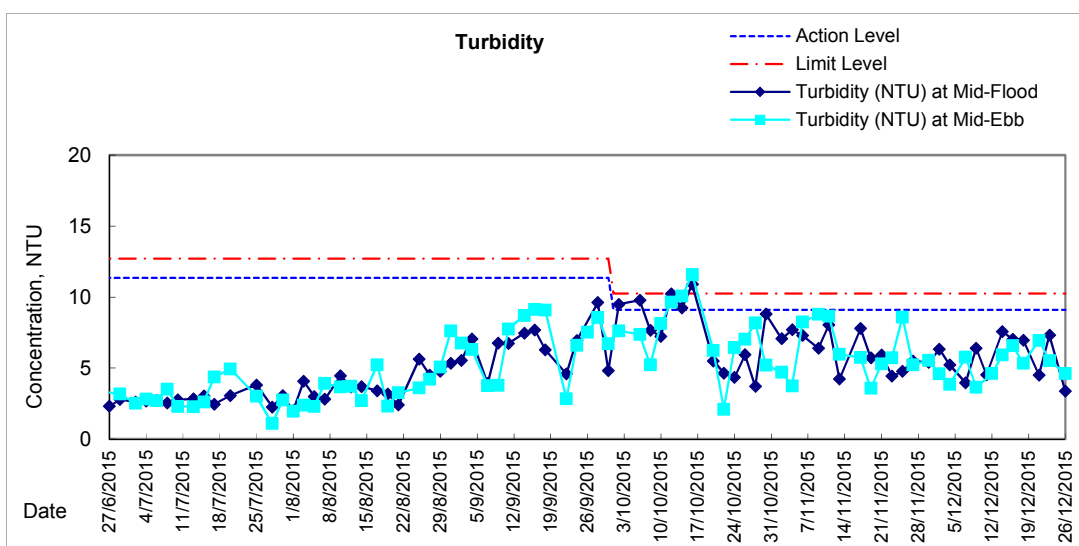
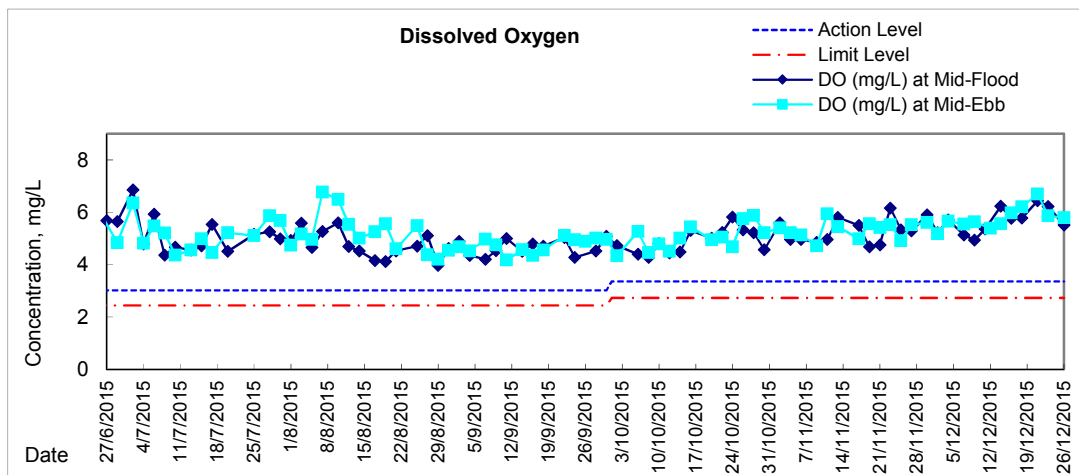


Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I



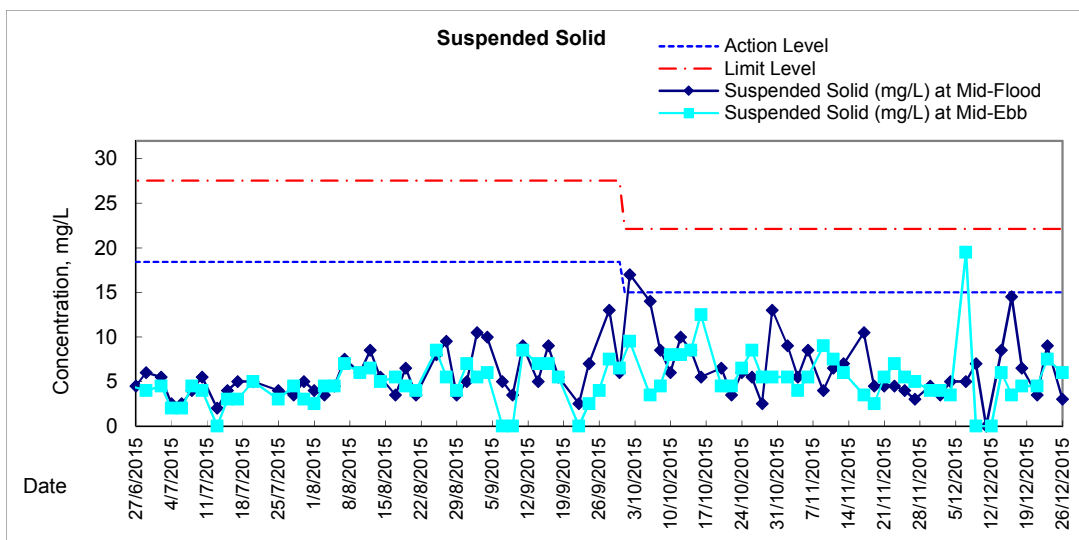
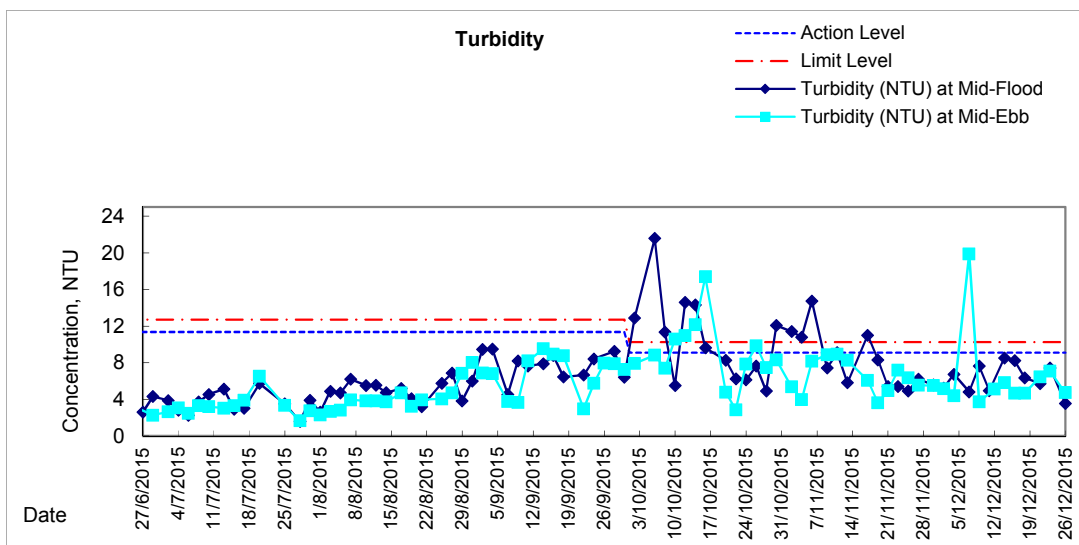
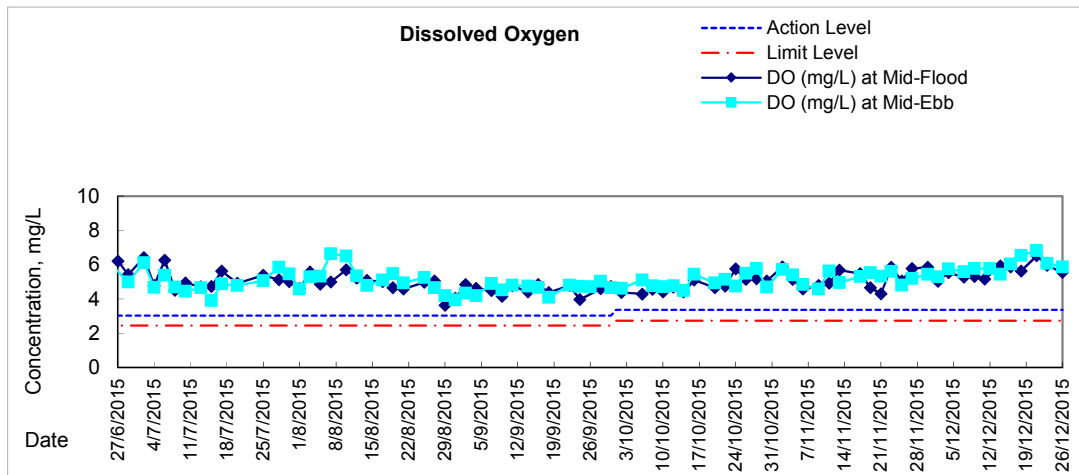


Graphic Presentation of Water Quality Result of P3 - APA



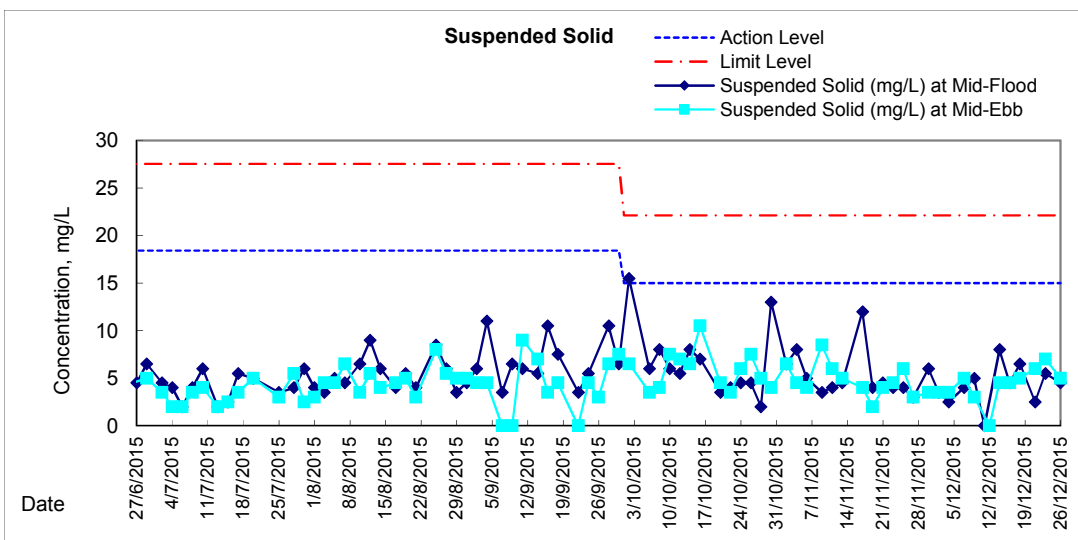
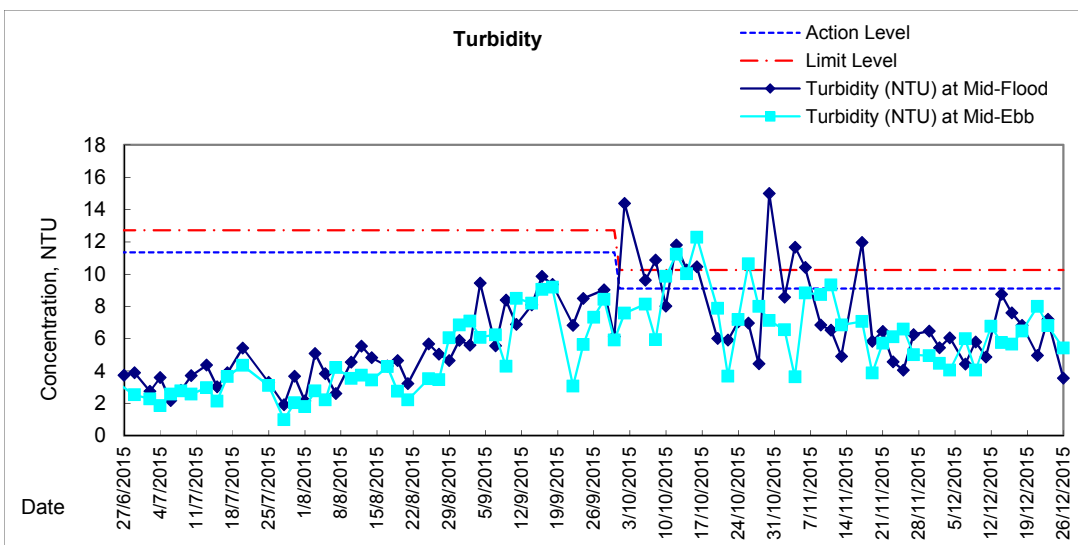
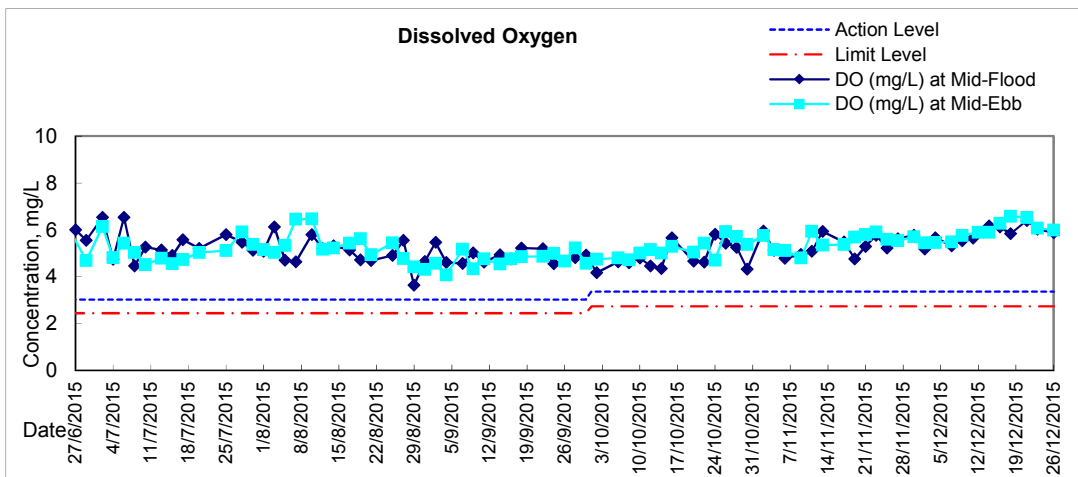


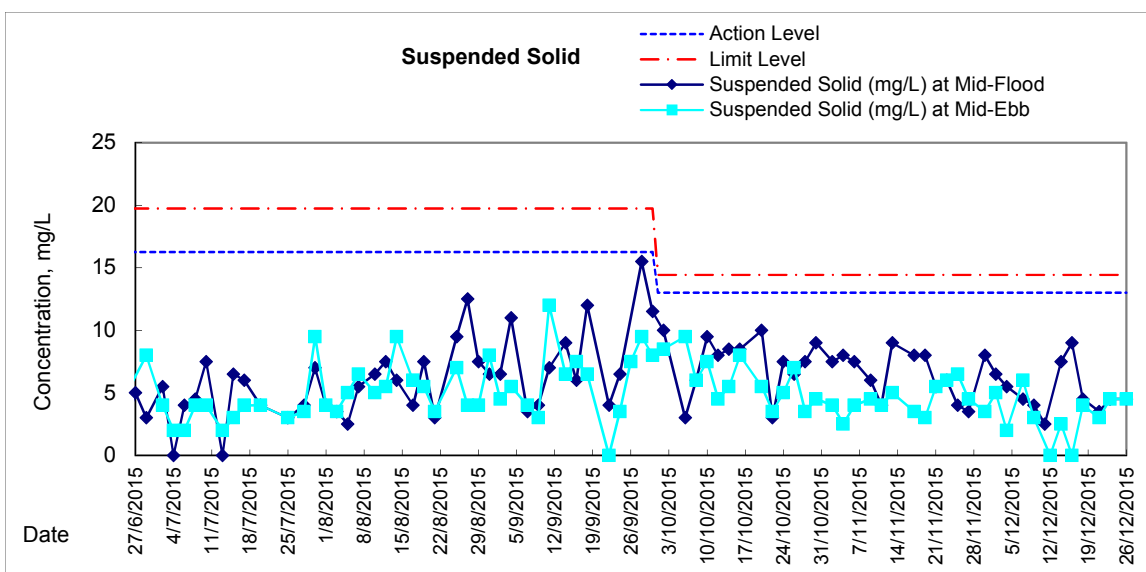
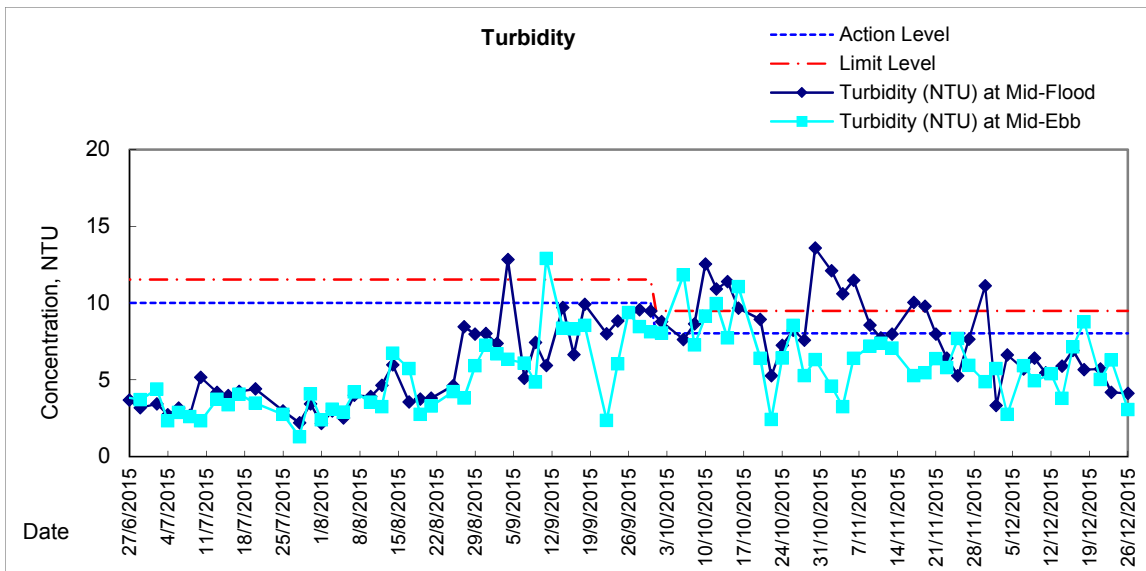
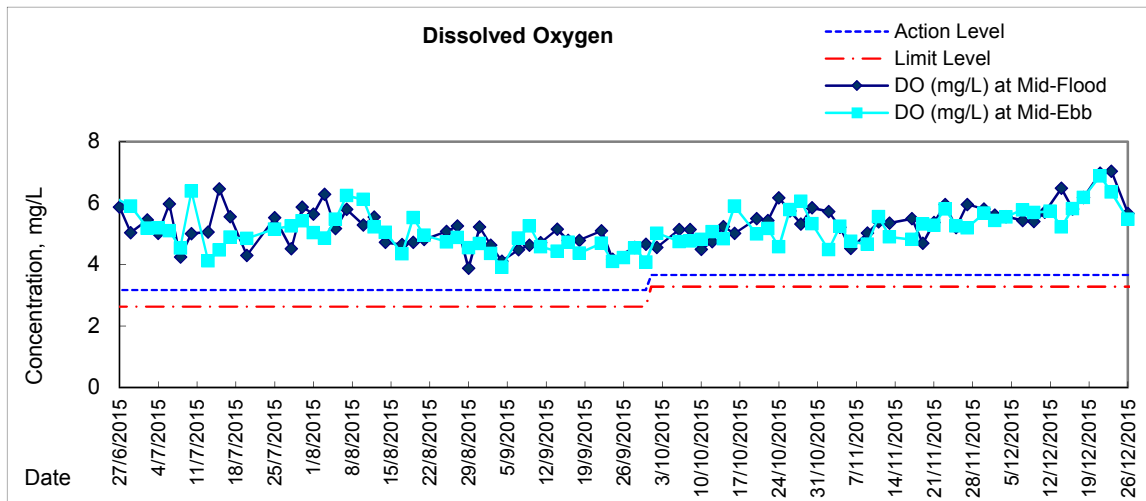
Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT





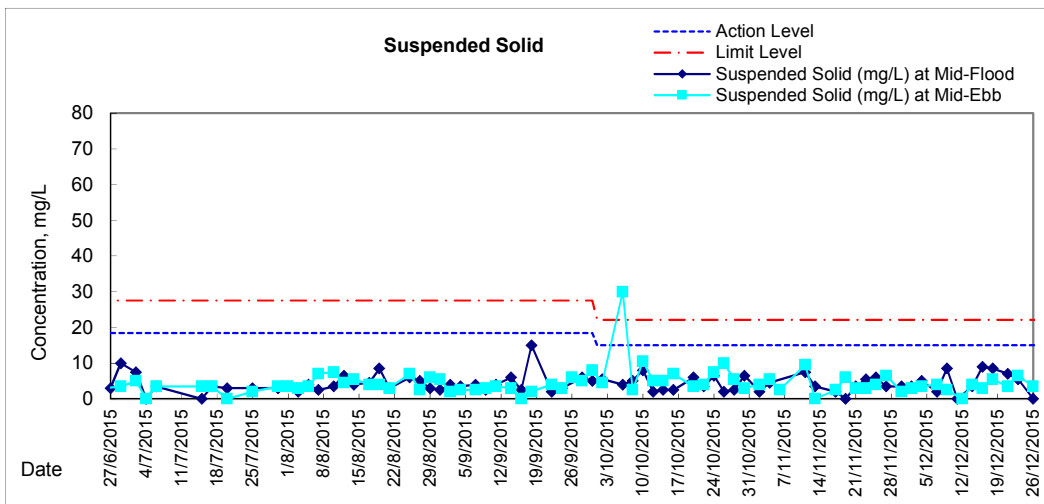
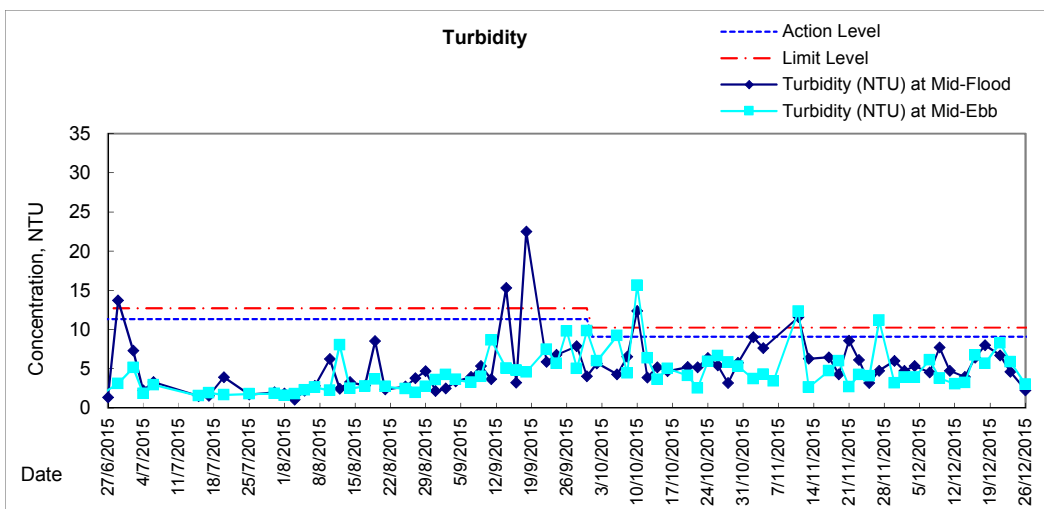
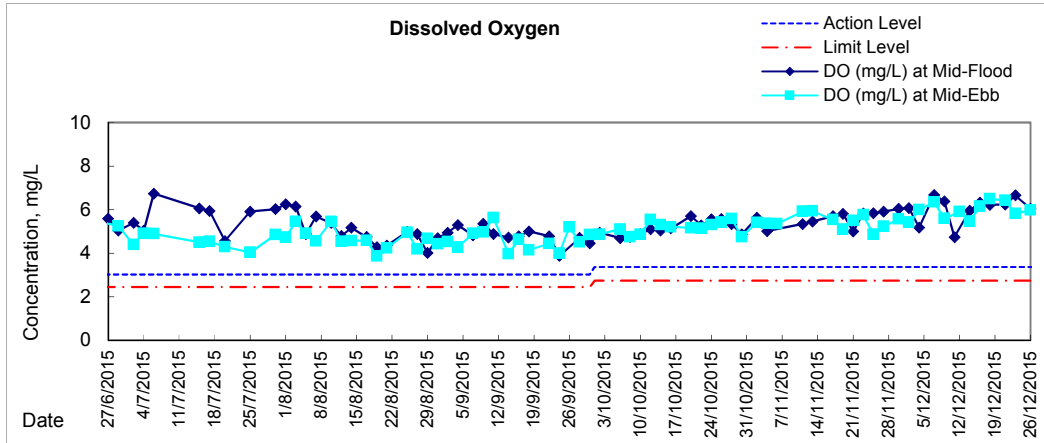
Graphic Presentation of Water Quality Result of P4 - SOC







Graphic Presentation of Water Quality Result of C7 - Windsor House



**Water Monitoring Result at C6 - Excelsior Hotel
Mid-Flood Tide**

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO		
					°C			-			ppt			%			mg/L		
			m		Value		Average	Value		Average	Value		Average	Value		Average	Value		Average
30/11/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:00		Middle	1.5	25.40	25.40	25.4	8.27	8.27	8.3	31.34	31.34	31.3	84.9	82.7	83.8	5.94	5.78	5.86
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:15		Middle	1.5	24.40	24.40	24.4	8.28	8.28	8.3	30.78	30.78	30.8	82.3	82.5	82.4	5.77	5.78	5.78
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:59		Middle	1.5	23.20	23.20	23.2	8.33	8.33	8.3	31.10	31.10	31.1	77.0	75.1	76.1	5.49	5.37	5.43
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2015	15:50	Fine	Surface	1.0	22.60	22.60	22.6	8.45	8.45	8.5	31.04	31.04	31.0	82.3	82.5	82.4	5.95	5.96	5.96
	-		Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:52		Bottom	3.0	22.40	22.40	22.4	8.49	8.49	8.5	26.97	26.97	27.0	90.2	90.8	90.5	6.70	6.78	6.74
9/12/2015	17:15	Rainy	Surface	1.0	21.20	21.20	21.2	8.51	8.51	8.5	26.22	26.22	26.2	83.7	83.8	83.8	6.38	6.39	6.39
	-		Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:17		Bottom	3.0	21.10	21.10	21.1	8.48	8.48	8.5	28.80	28.80	28.8	84.0	83.7	83.9	6.26	6.24	6.25
11/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:40		Middle	1.5	22.60	22.60	22.6	8.33	8.33	8.3	31.90	31.90	31.9	90.9	90.8	90.9	6.52	6.51	6.52
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:20		Middle	1.5	21.90	21.90	21.9	8.25	8.25	8.3	31.64	31.64	31.6	86.2	85.5	85.9	6.26	6.23	6.25
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/12/2015	11:20	Fine	Surface	1.0	20.40	20.40	20.4	8.36	8.36	8.4	31.78	31.78	31.8	80.4	81.0	80.7	6.03	6.08	6.06
	-		Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:22		Bottom	3.0	20.50	20.80	20.7	8.37	8.37	8.4	31.93	31.93	31.9	88.6	88.1	88.4	6.56	6.54	6.55
18/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:48		Middle	1.0	20.10	20.10	20.1	8.28	8.28	8.3	32.19	32.19	32.2	87.5	85.3	86.4	6.57	6.41	6.49
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:41		Middle	1.0	20.60	20.60	20.6	8.21	8.21	8.2	31.69	31.69	31.7	83.8	82.4	83.1	6.25	6.14	6.20
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/12/2015	15:35	Fine	Surface	1.0	21.00	21.00	21.0	8.32	8.32	8.3	31.03	31.03	31.0	79.2	79.9	79.6	5.88	5.93	5.91
	-		Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:37		Bottom	3.0	21.00	21.00	21.0	8.33	8.33	8.3	30.98	30.98	31.0	79.3	78.7	79.0	5.83	5.78	5.81
26/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7:00		Middle	1.5	19.50	19.50	19.5	8.26	8.26	8.3	29.16	29.16	29.2	55.7	56.1	55.9	4.28	4.30	4.29
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.



Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area
Mid-Flood Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO		
					°C			-			ppt			%			mg/L		
			m		Value		Average	Value		Average	Value		Average	Value		Average	Value		Average
30/11/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:48		Middle	1.0	24.20	24.20	24.2	8.30	8.30	8.3	30.99	30.99	31.0	73.1	72.2	72.7	5.14	5.08	5.11
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:00		Middle	1.0	24.30	24.30	24.3	8.36	8.36	8.4	31.21	31.21	31.2	72.0	72.1	72.1	5.05	5.05	5.05
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:48		Middle	1.0	23.40	23.40	23.4	8.37	8.37	8.4	30.27	30.27	30.3	75.8	75.3	75.6	5.43	5.40	5.42
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:25		Middle	1.0	22.60	22.60	22.6	8.45	8.45	8.5	32.35	32.35	32.4	80.3	80.4	80.4	5.75	5.76	5.76
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/12/2015	-	Rainy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:42		Middle	1.0	21.60	21.60	21.6	8.41	8.41	8.4	29.25	29.25	29.3	78.9	78.9	78.9	5.84	5.84	5.84
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18:00		Middle	1.5	22.20	22.20	22.2	8.40	8.40	8.4	32.25	32.25	32.3	76.6	76.4	76.5	5.54	5.52	5.53
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:06		Middle	1.0	22.00	22.20	22.1	8.41	8.41	8.4	22.87	22.87	22.9	54.1	53.8	54.0	4.13	4.10	4.12
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:08		Middle	1.0	20.90	20.90	20.9	8.42	8.42	8.4	26.33	26.33	26.3	56.3	55.5	55.9	4.31	4.25	4.28
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:10		Middle	1.0	19.80	19.80	19.8	8.38	8.37	8.4	24.11	24.11	24.1	63.8	63.8	63.8	5.06	5.07	5.07
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:27		Middle	1.0	20.90	20.90	20.9	8.44	8.44	8.4	24.13	24.13	24.1	47.0	47.4	47.2	3.64	3.67	<u>3.66</u>
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:00		Middle	1.0	21.50	21.50	21.5	8.37	8.37	8.4	24.88	24.88	24.9	58.9	57.1	58.0	4.50	4.36	4.43
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:07		Middle	1.5	19.50	19.50	19.5	8.42	8.42	8.4	23.14	23.15	23.1	59.3	61.5	60.4	4.75	4.94	4.85
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO		
			m		°C		-		ppt		%		mg/L						
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
30/11/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2:15		Middle	1.5	22.80	22.80	22.8	8.43	8.43	8.4	29.04	29.04	29.0	69.0	68.5	68.8	5.03	4.99	5.01
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4:30		Middle	1.5	23.20	23.20	23.2	8.19	8.19	8.2	27.62	27.62	27.6	48.8	49.3	49.1	3.56	3.60	3.58
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:15		Middle	1.5	21.30	21.30	21.3	8.24	8.24	8.2	26.88	26.88	26.9	48.4	49.6	49.0	3.67	3.77	3.72
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:45		Middle	1.5	22.10	22.10	22.1	8.47	8.47	8.5	29.42	29.42	29.4	80.0	79.6	79.8	5.89	5.86	5.88
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:28		Middle	1.0	20.70	20.70	20.7	8.22	8.22	8.2	29.00	29.00	29.0	65.3	66.3	65.8	4.94	5.04	4.99
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:15		Middle	1.0	20.80	20.80	20.8	8.17	8.17	8.2	25.35	25.35	25.4	52.0	51.6	51.8	4.00	3.96	3.98
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:47		Middle	1.0	21.20	21.20	21.2	8.38	8.38	8.4	26.73	26.73	26.7	58.4	58.2	58.3	4.44	4.42	4.43
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:46		Middle	1.0	18.30	18.30	18.3	8.30	8.30	8.3	25.72	25.76	25.7	49.9	49.6	49.8	4.03	4.00	4.02
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4:27		Middle	1.5	16.50	16.50	16.5	8.37	8.37	8.4	29.52	29.54	29.5	61.3	61.6	61.5	5.00	5.04	5.02
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:20		Middle	1.5	20.30	20.30	20.3	8.33	8.33	8.3	31.41	31.41	31.4	85.9	85.2	85.6	6.55	6.49	6.52
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:01		Middle	1.5	20.90	20.90	20.9	8.25	8.25	8.3	31.75	31.75	31.8	78.1	76.7	77.4	5.79	5.69	5.74
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:50		Middle	1.0	19.30	19.30	19.3	8.04	8.04	8.0	25.80	25.80	25.8	43.2	43.7	43.5	3.42	3.96	3.69
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:
 Single underline denotes exceedance over Action Level.
 Double underline denotes exceedance over Limit Level.

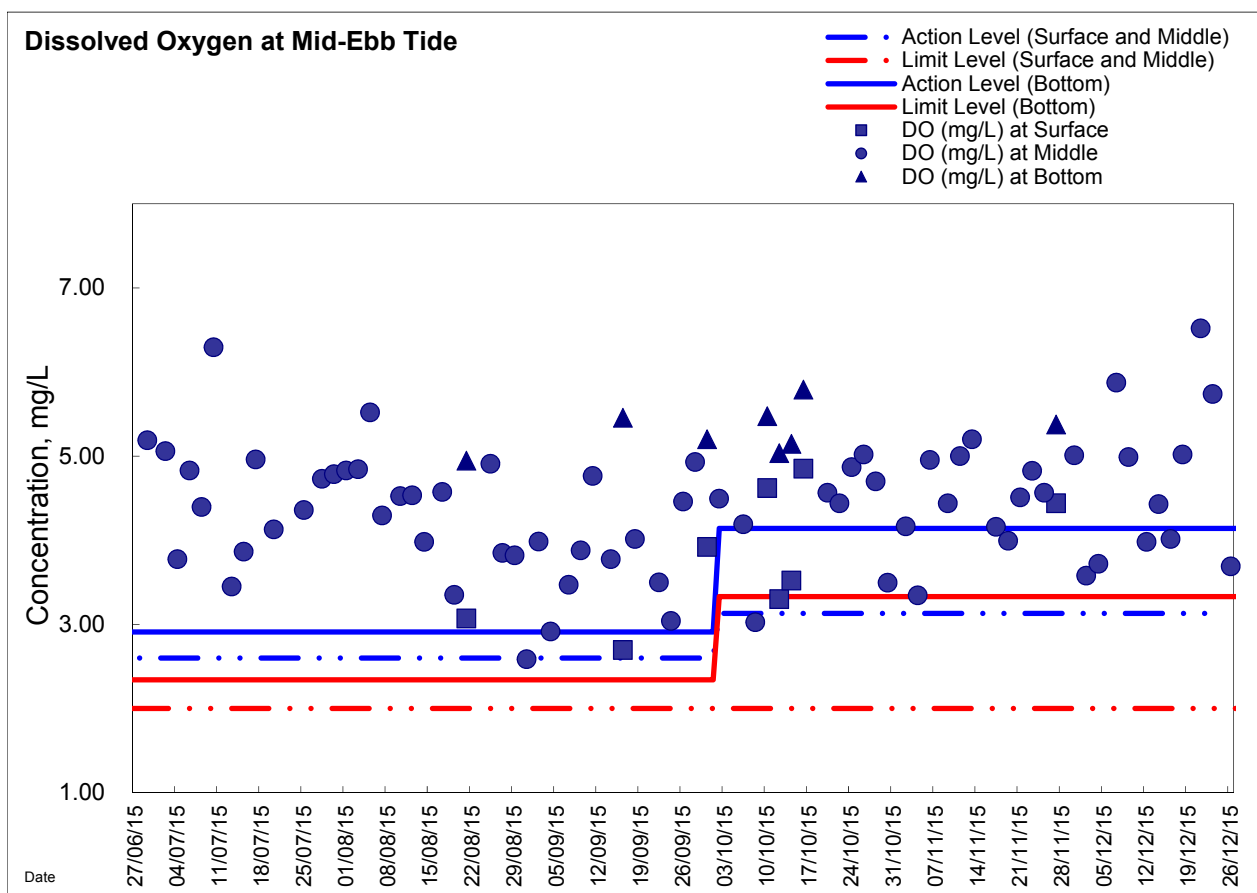
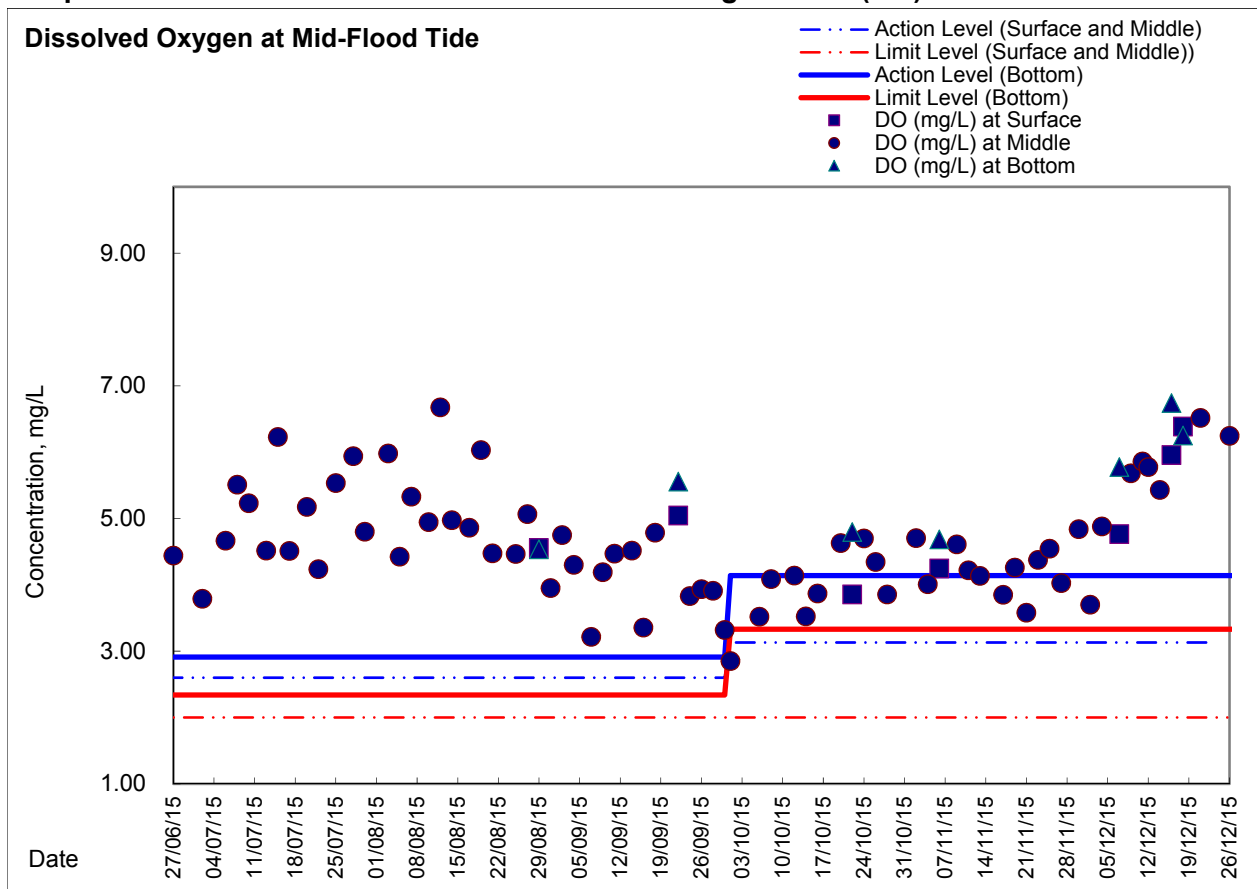
Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area Mid-Ebb Tide

Date	Time	Weater Condition	Sampling Depth		Water Temperature			pH			Salinity			DO Saturation			DO	
			m		°C		Average	-		Average	ppt		Average	%		Average	mg/L	
					Value	Value		Value	Value		Value	Value		Value	Value		Value	Value
30/11/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:32		Middle	1.5	23.00	23.00	23.0	8.36	8.36	8.4	23.21	23.21	23.2	55.3	55.7	55.5	4.13	4.16
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/12/2015	-	z	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:35		Middle	1.5	23.30	23.30	23.3	8.28	8.28	8.3	19.46	19.46	19.5	56.5	54.9	55.7	4.10	4.04
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:45		Middle	1.5	21.30	21.30	21.3	8.42	8.42	8.4	20.74	20.74	20.7	57.2	59.1	58.2	4.79	4.83
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:25		Middle	1.0	22.40	22.40	22.4	8.42	8.42	8.4	31.92	31.92	31.9	71.9	71.2	71.6	5.19	5.14
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:11		Middle	1.0	20.60	20.60	20.6	8.44	8.44	8.4	16.77	16.77	16.8	61.5	59.5	60.5	4.90	4.81
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:21		Middle	1.0	21.10	21.10	21.1	8.21	8.21	8.2	26.39	26.39	26.4	63.4	62.5	63.0	4.92	4.83
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4:11		Middle	1.0	21.70	21.70	21.7	8.48	8.48	8.5	18.91	18.91	18.9	52.9	53.2	53.1	4.03	4.09
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:22		Middle	1.0	18.60	18.60	18.6	8.39	8.39	8.4	25.28	25.28	25.3	52.3	51.4	51.9	4.20	4.11
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5:05		Middle	1.5	16.50	16.50	16.5	8.36	8.36	8.4	24.55	24.55	24.6	59.5	58.9	59.2	4.46	4.40
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:55		Middle	1.5	20.40	20.40	20.4	8.38	8.38	8.4	29.56	29.56	29.6	70.1	69.6	69.9	5.31	5.28
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/12/2015	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:50		Middle	1.0	21.10	21.10	21.1	8.44	8.44	8.4	23.52	23.52	23.5	55.6	55.0	55.3	4.31	4.26
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/12/2015	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:58		Middle	1.0	19.40	19.40	19.4	8.12	8.12	8.1	23.64	23.64	23.6	49.9	50.9	50.4	3.96	4.06
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.

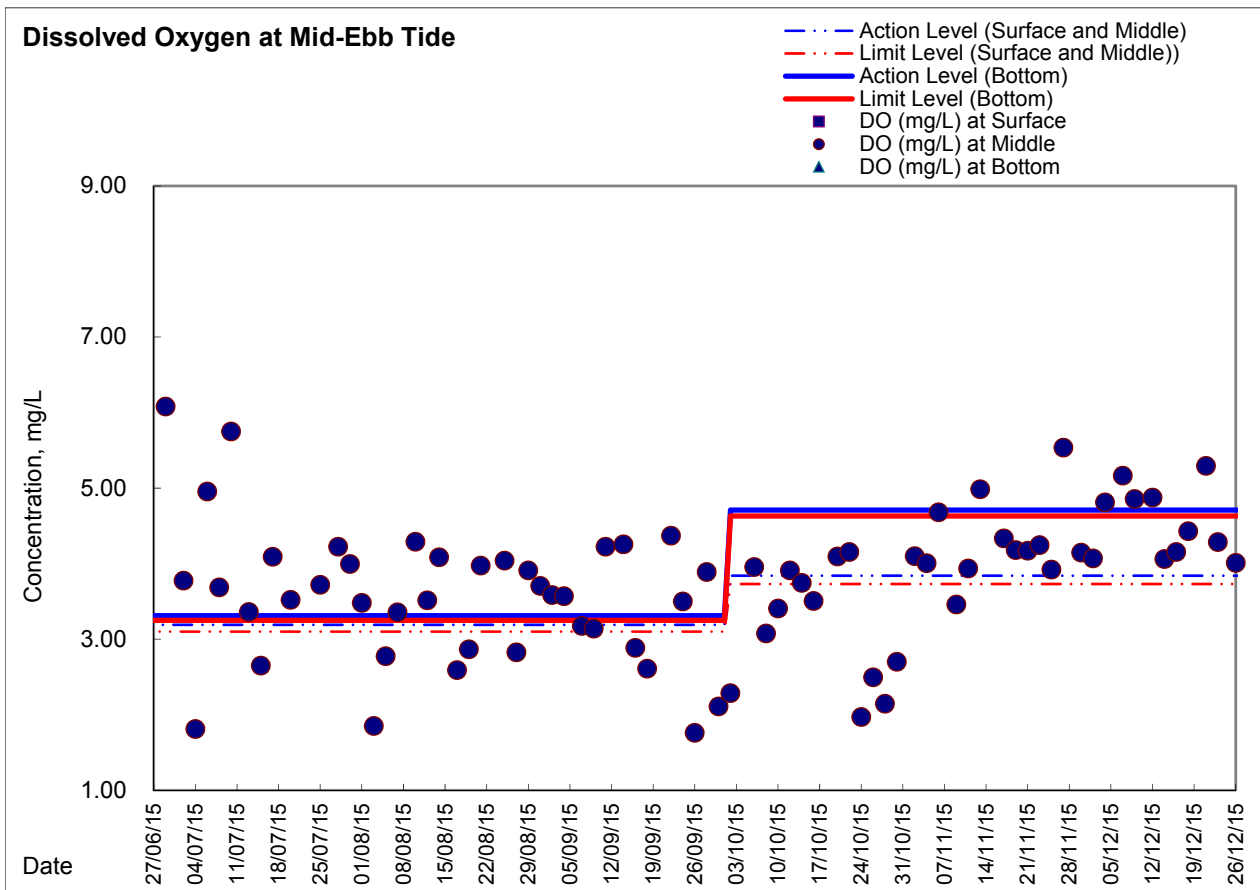
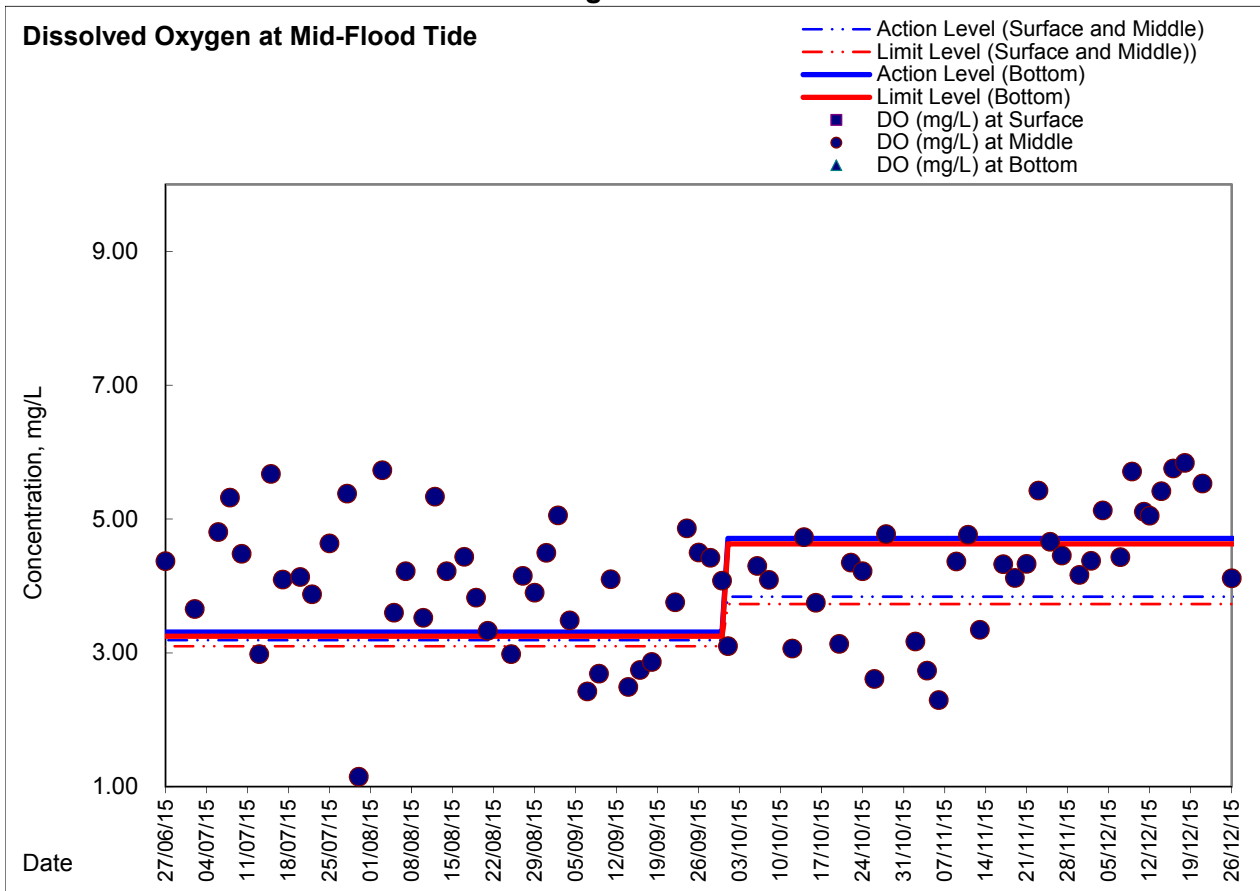


Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel





Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW
- South-western corners of ex-Public Cargo Works Area





Appendix 5.5

Real-time Noise Monitoring Results and Graphical Presentations

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
Normal Day 07:00-19:00											
28/11/2015 7:01	61	3/12/2015 12:31	64	9/12/2015 7:01	61	14/12/2015 13:31	69	19/12/2015 8:01	65	24/12/2015 14:31	63
28/11/2015 7:31	62	3/12/2015 13:01	62	9/12/2015 7:31	61	14/12/2015 14:01	69	19/12/2015 8:31	56	24/12/2015 15:01	54
28/11/2015 8:01	65	3/12/2015 13:31	66	9/12/2015 8:01	63	14/12/2015 14:31	70	19/12/2015 9:01	57	24/12/2015 15:31	59
28/11/2015 8:31	67	3/12/2015 14:01	64	9/12/2015 8:31	65	14/12/2015 15:01	69	19/12/2015 9:31	60	24/12/2015 16:01	67
28/11/2015 9:01	61	3/12/2015 14:31	69	9/12/2015 9:01	60	14/12/2015 15:31	57	19/12/2015 10:01	40	24/12/2015 16:31	66
28/11/2015 9:31	67	3/12/2015 15:01	59	9/12/2015 9:31	56	14/12/2015 16:01	65	19/12/2015 10:31	59	24/12/2015 17:01	64
28/11/2015 10:01	61	3/12/2015 15:31	57	9/12/2015 10:01	63	14/12/2015 16:31	67	19/12/2015 11:01	62	24/12/2015 17:31	63
28/11/2015 10:31	52	3/12/2015 16:01	67	9/12/2015 10:31	61	14/12/2015 17:01	62	19/12/2015 11:31	66	24/12/2015 18:01	63
28/11/2015 10:01	53	3/12/2015 16:31	63	9/12/2015 11:01	65	14/12/2015 17:31	67	19/12/2015 12:01	64	24/12/2015 18:31	63
28/11/2015 10:31	62	3/12/2015 17:01	67	9/12/2015 11:31	65	14/12/2015 18:01	66	19/12/2015 12:31	64		
28/11/2015 11:01	64	3/12/2015 17:31	65	9/12/2015 12:01	63	14/12/2015 18:31	64	19/12/2015 13:01	66	<u>Normal Day 19:00-23:00</u> <u>Sunday & Holiday</u> <u>07:00-23:00</u>	
28/11/2015 11:31	66	3/12/2015 18:01	62	9/12/2015 12:31	64	15/12/2015 7:01	61	19/12/2015 13:31	57		
28/11/2015 12:01	63	3/12/2015 18:31	61	9/12/2015 13:01	52	15/12/2015 7:31	61	19/12/2015 14:01	60	28/11/2015 19:01	36
28/11/2015 12:31	63	4/12/2015 7:01	61	9/12/2015 13:31	65	15/12/2015 8:01	65	19/12/2015 14:31	46	28/11/2015 19:06	45
28/11/2015 13:01	66	4/12/2015 7:31	62	9/12/2015 14:01	64	15/12/2015 8:31	62	19/12/2015 15:01	67	28/11/2015 19:11	61
28/11/2015 13:31	65	4/12/2015 8:01	65	9/12/2015 14:31	65	15/12/2015 9:01	63	19/12/2015 15:31	66	28/11/2015 19:16	61
28/11/2015 14:01	65	4/12/2015 8:31	62	9/12/2015 15:01	65	15/12/2015 9:31	69	19/12/2015 16:01	62	28/11/2015 19:21	61
28/11/2015 14:31	69	4/12/2015 9:01	65	9/12/2015 15:31	58	15/12/2015 10:01	67	19/12/2015 16:31	63	28/11/2015 19:26	61
28/11/2015 15:01	63	4/12/2015 9:31	62	9/12/2015 16:01	62	15/12/2015 10:31	67	19/12/2015 17:01	45	28/11/2015 19:31	62
28/11/2015 15:31	63	4/12/2015 10:01	58	9/12/2015 16:31	64	15/12/2015 11:01	71	19/12/2015 17:31	65	28/11/2015 19:36	45
28/11/2015 16:01	60	4/12/2015 10:31	64	9/12/2015 17:01	64	15/12/2015 11:31	55	19/12/2015 18:01	63	28/11/2015 19:41	50
28/11/2015 16:31	67	4/12/2015 11:01	66	9/12/2015 17:31	63	15/12/2015 12:01	62	19/12/2015 18:31	62	28/11/2015 19:46	54
28/11/2015 17:01	29	4/12/2015 11:31	62	9/12/2015 18:01	61	15/12/2015 12:31	63	21/12/2015 7:01	62	28/11/2015 19:51	48
28/11/2015 17:31	66	4/12/2015 12:01	64	9/12/2015 18:31	59	15/12/2015 13:01	67	21/12/2015 7:31	63	28/11/2015 19:56	62
28/11/2015 18:01	63	4/12/2015 12:31	63	10/12/2015 7:01	61	15/12/2015 13:31	69	21/12/2015 8:01	65	28/11/2015 20:01	61
28/11/2015 18:31	62	4/12/2015 13:01	57	10/12/2015 7:31	62	15/12/2015 14:01	70	21/12/2015 8:31	67	28/11/2015 20:06	60
30/11/2015 7:01	61	4/12/2015 13:31	65	10/12/2015 8:01	64	15/12/2015 14:31	73	21/12/2015 9:01	63	28/11/2015 20:11	61
30/11/2015 7:31	62	4/12/2015 14:01	65	10/12/2015 8:31	67	15/12/2015 15:01	76	21/12/2015 9:31	62	28/11/2015 20:16	61
30/11/2015 8:01	66	4/12/2015 14:31	67	10/12/2015 9:01	61	15/12/2015 15:31	48	21/12/2015 10:01	63	28/11/2015 20:21	46
30/11/2015 8:31	62	4/12/2015 15:01	64	10/12/2015 9:31	65	15/12/2015 16:01	50	21/12/2015 10:31	65	28/11/2015 20:26	61
30/11/2015 9:01	64	4/12/2015 15:31	67	10/12/2015 10:01	64	15/12/2015 16:31	60	21/12/2015 11:01	65	28/11/2015 20:31	52
30/11/2015 9:31	70	4/12/2015 16:01	59	10/12/2015 10:31	67	15/12/2015 17:01	55	21/12/2015 11:31	67	28/11/2015 20:36	60
30/11/2015 10:01	70	4/12/2015 16:31	65	10/12/2015 11:01	68	15/12/2015 17:31	67	21/12/2015 12:01	65	28/11/2015 20:41	60
30/11/2015 10:31	68	4/12/2015 17:01	64	10/12/2015 11:31	67	15/12/2015 18:01	65	21/12/2015 12:31	62	28/11/2015 20:46	62
30/11/2015 11:01	71	4/12/2015 17:31	48	10/12/2015 12:01	64	15/12/2015 18:31	64	21/12/2015 13:01	66	28/11/2015 20:51	60
30/11/2015 11:31	67	4/12/2015 18:01	64	10/12/2015 12:31	64	16/12/2015 7:01	61	21/12/2015 13:31	66	28/11/2015 20:56	60
30/11/2015 12:01	62	4/12/2015 18:31	66	10/12/2015 13:01	62	16/12/2015 7:31	63	21/12/2015 14:01	63	28/11/2015 21:01	61
30/11/2015 12:31	62	5/12/2015 7:01	60	10/12/2015 13:31	68	16/12/2015 8:01	66	21/12/2015 14:31	63	28/11/2015 21:06	60
30/11/2015 13:01	66	5/12/2015 7:31	61	10/12/2015 14:01	68	16/12/2015 8:31	53	21/12/2015 15:01	65	28/11/2015 21:11	60
30/11/2015 13:31	69	5/12/2015 8:01	65	10/12/2015 14:31	67	16/12/2015 9:01	59	21/12/2015 15:31	66	28/11/2015 21:16	61
30/11/2015 14:01	64	5/12/2015 8:31	65	10/12/2015 15:01	61	16/12/2015 9:31	60	21/12/2015 16:01	61	28/11/2015 21:21	60
30/11/2015 14:31	67	5/12/2015 9:01	68	10/12/2015 15:31	65	16/12/2015 10:01	62	21/12/2015 16:31	66	28/11/2015 21:26	60
30/11/2015 15:01	70	5/12/2015 9:31	66	10/12/2015 16:01	64	16/12/2015 10:31	64	21/12/2015 17:01	55	28/11/2015 21:31	61
30/11/2015 15:31	68	5/12/2015 10:01	67	10/12/2015 16:31	64	16/12/2015 11:01	66	21/12/2015 17:31	66	28/11/2015 21:36	61
30/11/2015 16:01	66	5/12/2015 10:31	63	10/12/2015 17:01	67	16/12/2015 11:31	61	21/12/2015 18:01	64	28/11/2015 21:41	45
30/11/2015 16:31	66	5/12/2015 11:01	65	10/12/2015 17:31	65	16/12/2015 12:01	66	21/12/2015 18:31	61	28/11/2015 21:46	61
30/11/2015 17:01	57	5/12/2015 11:31	56	10/12/2015 18:01	63	16/12/2015 12:31	65	21/12/2015 19:01	62	28/11/2015 21:51	61
30/11/2015 17:31	52	5/12/2015 12:01	64	10/12/2015 18:31	62	16/12/2015 13:01	59	21/12/2015 19:31	63	28/11/2015 21:56	60
30/11/2015 18:01	65	5/12/2015 12:31	63	11/12/2015 7:01	61	16/12/2015 13:31	62	21/12/2015 20:01	65	28/11/2015 22:01	62
30/11/2015 18:31	62	5/12/2015 13:01	51	11/12/2015 7:31	61	16/12/2015 14:01	65	21/12/2015 20:31	67	28/11/2015 22:06	46
1/12/2015 7:01	61	5/12/2015 13:31	65	11/12/2015 8:01	64	16/12/2015 14:31	62	21/12/2015 21:01	62	28/11/2015 22:11	61
1/12/2015 7:31	62	5/12/2015 14:01	60	11/12/2015 8:31	67	16/12/2015 15:01	51	21/12/2015 21:31	67	28/11/2015 22:16	60
1/12/2015 8:01	65	5/12/2015 14:31	42	11/12/2015 9:01	67	16/12/2015 15:31	67	21/12/2015 22:01	64	28/11/2015 22:21	60
1/12/2015 8:31	62	5/12/2015 15:01	36	11/12/2015 9:31	64	16/12/2015 16:01	60	21/12/2015 22:31	67	28/11/2015 22:26	60
1/12/2015 9:01	66	5/12/2015 15:31	54	11/12/2015 10:01	67	16/12/2015 16:31	58	21/12/2015 23:01	68	28/11/2015 22:31	61
1/12/2015 9:31	68	5/12/2015 16:01	63	11/12/2015 10:31	66	16/12/2015 17:01	67	21/12/2015 23:31	66	28/11/2015 22:36	60
1/12/2015 10:01	69	5/12/2015 16:31	59	11/12/2015 11:01	65	16/12/2015 17:31	65	21/12/2015 24:01	64	28/11/2015 22:41	52
1/12/2015 10:31	68	5/12/2015 17:01	66	11/12/2015 11:31	66	16/12/2015 18:01	64	21/12/2015 24:31	68	28/11/2015 22:46	60
1/12/2015 11:01	67	5/12/2015 17:31	64	11/12/2015 12:01	62	16/12/2015 18:31	63	21/12/2015 25:01	67	28/11/2015 22:51	60
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1/12/2015 12:01	64	5/12/2015 18:31	61	11/12/2015 13:01	66	17/12/2015 7:31	61	21/12/2015 26:01	62	29/11/2015 7:01	59
1/12/2015 12:31	64	7/12/2015 7:01	62	11/12/2015 13:31	66	17/12/2015 8:01	65	21/12/2015 26:31	67	29/11/2015 7:06	59
1/12/2015 13:01	61	7/12/2015 7:31	62	11/12/2015 14:01	62	17/12/2015 8:31	67	21/12/2015 27:01	62	29/11/2015 7:11	59
1/12/2015 13:31	66	7/12/2015 8:01	65	11/12/2015 14:31	65	17/12/2015 9:01	67	21/12/2015 27:31	62	29/11/2015 7:16	60
1/12/2015 14:01	68	7/12/2015 8:31	55	11/12/2015 15:01	65	17/12/2015 9:31	55	21/12/2015 28:01	67	29/11/2015 7:21	60
1/12/2015 14:31	67	7/12/2015 9:01	63	11/12/2015 15:31	67	17/12/2015 10:01	60	21/12/2015 28:31	63	29/11/2015 7:26	60
1/12/2015 15:01	60	7/12/2015 9:31	65	11/12/2015 16:01	63	17/12/2015 10:31	57	21/12/2015 29:01	62	29/11/2015 7:31	59
1/12/2015 15:31	54	7/12/2015 10:01	66	11/12/2015 16:31	65	17/12/2015 11:01	67	21/12/2015 29:31	62	29/11/2015 7:36	48
1/12/2015 16:01	66	7/12/2015 10:31	65	11/12/2015 17:01	66	17/12/2015 11:31	66	21/12/2015 30:01	61	29/11/2015 7:41	59
1/12/2015 16:31	66	7/12/2015 11:01	66	11/12/2015 17:31	65	17/12/2015 12:01	63	21/12/2015 30:31	62	29/11/2015 7:46	60
1/12/2015 17:01	64	7/12/2015 11:31	63	11/12/2015 18:01	60	17/12/2015 12:31	64	21/12/2015 31:0			

Real-time Noise Data	RTN2a (Hong Kong Electric Centre)				
29/11/2015 10:56 61	29/11/2015 20:01 61	1/12/2015 21:06 61	3/12/2015 22:11 60	6/12/2015 7:16 60	6/12/2015 16:21 58
29/11/2015 11:01 62	29/11/2015 20:06 62	1/12/2015 21:11 61	3/12/2015 22:16 60	6/12/2015 7:21 60	6/12/2015 16:26 62
29/11/2015 11:06 61	29/11/2015 20:11 60	1/12/2015 21:16 60	3/12/2015 22:21 61	6/12/2015 7:26 61	6/12/2015 16:31 62
29/11/2015 11:11 61	29/11/2015 20:16 60	1/12/2015 21:21 47	3/12/2015 22:26 60	6/12/2015 7:31 60	6/12/2015 16:36 42
29/11/2015 11:16 61	29/11/2015 20:21 61	1/12/2015 21:26 62	3/12/2015 22:31 60	6/12/2015 7:36 60	6/12/2015 16:41 62
29/11/2015 11:21 61	29/11/2015 20:26 61	1/12/2015 21:31 61	3/12/2015 22:36 60	6/12/2015 7:41 58	6/12/2015 16:46 61
29/11/2015 11:26 61	29/11/2015 20:31 60	1/12/2015 21:36 60	3/12/2015 22:41 61	6/12/2015 7:46 61	6/12/2015 16:51 56
29/11/2015 11:31 61	29/11/2015 20:36 60	1/12/2015 21:41 60	3/12/2015 22:46 61	6/12/2015 7:51 61	6/12/2015 16:56 54
29/11/2015 11:36 56	29/11/2015 20:41 60	1/12/2015 21:46 61	3/12/2015 22:51 61	6/12/2015 7:56 61	6/12/2015 17:01 55
29/11/2015 11:41 61	29/11/2015 20:46 60	1/12/2015 21:51 61	3/12/2015 22:56 59	6/12/2015 8:01 61	6/12/2015 17:06 57
29/11/2015 11:46 61	29/11/2015 20:51 60	1/12/2015 21:56 61	4/12/2015 19:01 61	6/12/2015 8:06 46	6/12/2015 17:11 50
29/11/2015 11:51 61	29/11/2015 20:56 61	1/12/2015 22:01 61	4/12/2015 19:06 61	6/12/2015 8:11 61	6/12/2015 17:16 56
29/11/2015 11:56 61	29/11/2015 21:01 60	1/12/2015 22:06 60	4/12/2015 19:11 60	6/12/2015 8:16 61	6/12/2015 17:21 46
29/11/2015 12:01 62	29/11/2015 21:06 60	1/12/2015 22:11 61	4/12/2015 19:16 61	6/12/2015 8:21 61	6/12/2015 17:26 52
29/11/2015 12:06 60	29/11/2015 21:11 60	1/12/2015 22:16 61	4/12/2015 19:21 49	6/12/2015 8:26 62	6/12/2015 17:31 51
29/11/2015 12:11 61	29/11/2015 21:16 60	1/12/2015 22:21 47	4/12/2015 19:26 62	6/12/2015 8:31 51	6/12/2015 17:36 53
29/11/2015 12:16 59	29/11/2015 21:21 61	1/12/2015 22:26 61	4/12/2015 19:31 61	6/12/2015 8:36 62	6/12/2015 17:41 62
29/11/2015 12:21 62	29/11/2015 21:26 60	1/12/2015 22:31 61	4/12/2015 19:36 61	6/12/2015 8:41 62	6/12/2015 17:46 55
29/11/2015 12:26 61	29/11/2015 21:31 60	1/12/2015 22:36 62	4/12/2015 19:41 61	6/12/2015 8:46 53	6/12/2015 17:51 50
29/11/2015 12:31 61	29/11/2015 21:36 61	1/12/2015 22:41 60	4/12/2015 19:46 61	6/12/2015 8:51 59	6/12/2015 17:56 62
29/11/2015 12:36 61	29/11/2015 21:41 60	1/12/2015 22:46 61	4/12/2015 19:51 45	6/12/2015 8:56 54	6/12/2015 18:01 50
29/11/2015 12:41 61	29/11/2015 21:46 60	1/12/2015 22:51 60	4/12/2015 19:56 46	6/12/2015 9:01 53	6/12/2015 18:06 50
29/11/2015 12:46 61	29/11/2015 21:51 60	1/12/2015 22:56 60	4/12/2015 20:01 62	6/12/2015 9:06 62	6/12/2015 18:11 62
29/11/2015 12:51 61	29/11/2015 21:56 61	2/12/2015 19:01 60	4/12/2015 20:06 49	6/12/2015 9:11 55	6/12/2015 18:16 62
29/11/2015 12:56 61	29/11/2015 22:01 60	2/12/2015 19:06 61	4/12/2015 20:11 61	6/12/2015 9:16 48	6/12/2015 18:21 50
29/11/2015 13:01 46	29/11/2015 22:06 60	2/12/2015 19:11 61	4/12/2015 20:16 62	6/12/2015 9:21 62	6/12/2015 18:26 47
29/11/2015 13:06 61	29/11/2015 22:11 61	2/12/2015 19:16 55	4/12/2015 20:21 61	6/12/2015 9:26 62	6/12/2015 18:31 62
29/11/2015 13:11 61	29/11/2015 22:16 60	2/12/2015 19:21 62	4/12/2015 20:26 61	6/12/2015 9:31 55	6/12/2015 18:36 62
29/11/2015 13:16 46	29/11/2015 22:21 60	2/12/2015 19:26 62	4/12/2015 20:31 61	6/12/2015 9:36 55	6/12/2015 18:41 62
29/11/2015 13:21 62	29/11/2015 22:26 60	2/12/2015 19:31 62	4/12/2015 20:36 61	6/12/2015 9:41 55	6/12/2015 18:46 62
29/11/2015 13:26 48	29/11/2015 22:31 60	2/12/2015 19:36 61	4/12/2015 20:41 61	6/12/2015 9:46 53	6/12/2015 18:51 61
29/11/2015 13:31 61	29/11/2015 22:36 60	2/12/2015 19:41 62	4/12/2015 20:46 62	6/12/2015 9:51 52	6/12/2015 18:56 62
29/11/2015 13:36 61	29/11/2015 22:41 60	2/12/2015 19:46 55	4/12/2015 20:51 61	6/12/2015 9:56 57	6/12/2015 19:01 62
29/11/2015 13:41 61	29/11/2015 22:46 60	2/12/2015 19:51 62	4/12/2015 20:56 61	6/12/2015 10:01 53	6/12/2015 19:06 62
29/11/2015 13:46 62	29/11/2015 22:51 60	2/12/2015 19:56 62	4/12/2015 21:01 61	6/12/2015 10:06 52	6/12/2015 19:11 56
29/11/2015 13:51 61	29/11/2015 22:56 60	2/12/2015 20:01 61	4/12/2015 21:06 62	6/12/2015 10:11 56	6/12/2015 19:16 62
29/11/2015 13:56 61	30/11/2015 19:01 48	2/12/2015 20:06 60	4/12/2015 21:11 60	6/12/2015 10:16 53	6/12/2015 19:21 62
29/11/2015 14:01 49	30/11/2015 19:06 48	2/12/2015 20:11 56	4/12/2015 21:16 60	6/12/2015 10:21 62	6/12/2015 19:26 61
29/11/2015 14:06 48	30/11/2015 19:11 62	2/12/2015 20:16 61	4/12/2015 21:21 60	6/12/2015 10:26 54	6/12/2015 19:31 62
29/11/2015 14:11 61	30/11/2015 19:16 62	2/12/2015 20:21 61	4/12/2015 21:26 61	6/12/2015 10:31 52	6/12/2015 19:36 61
29/11/2015 14:16 61	30/11/2015 19:21 62	2/12/2015 20:26 61	4/12/2015 21:31 61	6/12/2015 10:36 62	6/12/2015 19:41 61
29/11/2015 14:21 62	30/11/2015 19:26 62	2/12/2015 20:31 61	4/12/2015 21:36 61	6/12/2015 10:41 62	6/12/2015 19:46 62
29/11/2015 14:26 61	30/11/2015 19:31 58	2/12/2015 20:36 43	4/12/2015 21:41 61	6/12/2015 10:46 50	6/12/2015 19:51 62
29/11/2015 14:31 61	30/11/2015 19:36 55	2/12/2015 20:41 61	4/12/2015 21:46 47	6/12/2015 10:51 62	6/12/2015 19:56 62
29/11/2015 14:36 62	30/11/2015 19:41 48	2/12/2015 20:46 61	4/12/2015 21:51 61	6/12/2015 10:56 50	6/12/2015 20:01 61
29/11/2015 14:41 62	30/11/2015 19:46 42	2/12/2015 20:51 61	4/12/2015 21:56 61	6/12/2015 11:01 62	6/12/2015 20:06 61
29/11/2015 14:46 61	30/11/2015 19:51 61	2/12/2015 20:56 61	4/12/2015 22:01 61	6/12/2015 11:06 49	6/12/2015 20:11 61
29/11/2015 14:51 61	30/11/2015 19:56 62	2/12/2015 21:01 61	4/12/2015 22:06 61	6/12/2015 11:11 55	6/12/2015 20:16 46
29/11/2015 14:56 61	30/11/2015 20:01 61	2/12/2015 21:06 61	4/12/2015 22:11 61	6/12/2015 11:16 54	6/12/2015 20:21 61
29/11/2015 15:01 61	30/11/2015 20:06 59	2/12/2015 21:11 61	4/12/2015 22:16 61	6/12/2015 11:21 51	6/12/2015 20:26 54
29/11/2015 15:06 62	30/11/2015 20:11 61	2/12/2015 21:16 61	4/12/2015 22:21 60	6/12/2015 11:26 62	6/12/2015 20:31 57
29/11/2015 15:11 62	30/11/2015 20:16 61	2/12/2015 21:21 61	4/12/2015 22:26 61	6/12/2015 11:31 53	6/12/2015 20:36 62
29/11/2015 15:16 61	30/11/2015 20:21 62	2/12/2015 21:26 61	4/12/2015 22:31 61	6/12/2015 11:36 62	6/12/2015 20:41 61
29/11/2015 15:21 58	30/11/2015 20:26 61	2/12/2015 21:31 61	4/12/2015 22:36 61	6/12/2015 11:41 54	6/12/2015 20:46 61
29/11/2015 15:26 47	30/11/2015 20:31 61	2/12/2015 21:36 61	4/12/2015 22:41 61	6/12/2015 11:46 55	6/12/2015 20:51 61
29/11/2015 15:31 62	30/11/2015 20:36 60	2/12/2015 21:41 61	4/12/2015 22:46 61	6/12/2015 11:51 62	6/12/2015 20:56 61
29/11/2015 15:36 61	30/11/2015 20:41 52	2/12/2015 21:46 61	4/12/2015 22:51 60	6/12/2015 11:56 62	6/12/2015 21:01 61
29/11/2015 15:41 61	30/11/2015 20:46 61	2/12/2015 21:51 61	4/12/2015 22:56 61	6/12/2015 12:01 62	6/12/2015 21:06 59
29/11/2015 15:46 51	30/11/2015 20:51 60	2/12/2015 21:56 61	5/12/2015 19:01 61	6/12/2015 12:06 54	6/12/2015 21:11 61
29/11/2015 15:51 61	30/11/2015 20:56 60	2/12/2015 22:01 62	5/12/2015 19:06 61	6/12/2015 12:11 61	6/12/2015 21:16 61
29/11/2015 15:56 61	30/11/2015 21:01 60	2/12/2015 22:06 61	5/12/2015 19:11 69	6/12/2015 12:16 61	6/12/2015 21:21 61
29/11/2015 16:01 62	30/11/2015 21:06 60	2/12/2015 22:11 61	5/12/2015 19:16 60	6/12/2015 12:21 62	6/12/2015 21:26 61
29/11/2015 16:06 61	30/11/2015 21:11 60	2/12/2015 22:16 53	5/12/2015 19:21 61	6/12/2015 12:26 54	6/12/2015 21:31 61
29/11/2015 16:11 61	30/11/2015 21:16 60	2/12/2015 22:21 61	5/12/2015 19:26 62	6/12/2015 12:31 57	6/12/2015 21:36 61
29/11/2015 16:16 61	30/11/2015 21:21 61	2/12/2015 22:26 61	5/12/2015 19:31 50	6/12/2015 12:36 57	6/12/2015 21:41 62
29/11/2015 16:21 61	30/11/2015 21:26 61	2/12/2015 22:31 61	5/12/2015 19:36 62	6/12/2015 12:41 53	6/12/2015 21:46 61
29/11/2015 16:26 62	30/11/2015 21:31 61	2/12/2015 22:36 53	5/12/2015 19:41 61	6/12/2015 12:46 52	6/12/2015 21:51 61
29/11/2015 16:31 54	30/11/2015 21:36 61	2/12/2015 22:41 61	5/12/2015 19:46 61	6/12/2015 12:51 55	6/12/2015 21:56 61
29/11/2015 16:36 62	30/11/2015 21:41 53	2/12/2015 22:46 61	5/12/2015 19:51 46	6/12/2015 12:56 57	6/12/2015 22:01 61
29/11/2015 16:41 62	30/11/2015 21:46 60	2/12/2015 22:51 60	5/12/2015 19:56 51	6/12/2015 13:01 62	6/12/2015 22:06 61
29/11/2015 16:46 61	30/11/2015 21:51 61	2/12/2015 22:56 60	5/12/2015 20:01 55	6/12/2015 13:06 59	6/12/2015 22:11 62
29/11/2015 16:51 61	30/11/2015 21:56 61	3/12/2015 19:01 59	5/12/2015 20:06 62	6/12/2015 13:11 51	6/12/2015 22:16 60
29/11/2015 16:56 61	30/11/2015 22:01 52	3/12/2015 19:06 59	5/12/2015 20:11 43	6/12/2015 13:16 49	6/12/2015 22:21 61
29/11/2015 17:01 46	30/11/2015 22:06 61	3/12/2015 19:11 60	5/12/2015 20:16 62	6/12/2015 13:21 54	6/12/2015 22:26 61
29/11/2015 17:06 61	30/11/2015 22:11 61	3/12/2015 19:16 60	5/12/2015 20:21 62	6/12/2015 13:26 48	6/12/2015 22:31 61
29/11/2015 17:11 62	30/11/2015 22:16 56	3/12/2015 19:21 61	5/12/2015 20:26 61	6/12/2015 13:31 52	6/12/2015 22:36 61
29/11/2015 17:16 61	30/11/2015 22:21 61	3/12/2015 19:26 61	5/12/2015 20:31 62	6/12/2015 13:36 49	6/12/2015 22:41 61
29/11/2015 17:21 52	30/11/2015 22:26 62	3/12/2015 19:31 60	5/12/2015 20:36 62	6/12/2015 13:41 54	6/12/2015 22:46 61
29/11/2015 17:26 61	30/11/2015 22:31 61	3/12/2015 19:36 61	5/12/2015 20:41 61	6/12/2015 13:46 53	6/12/2015 22:51 62
29/11/2015 17:31 61	30/11/2015 22:36 60	3/12/2015 19:41 60	5/12/2015 20:46 61	6/12/2015 13:51 55	6/12/2015 22:56 62
29/11/2015 17:36 61	30/11/2015 22:41 60	3/12/2015 19:46 61	5/12/2015 20:51 58	6/12/2015 13:56 55	7/12/2015 19:01 62
29/11/2015 17:41 62	30/11/2015 22:46 60	3/12/2015 19:51 61	5/12/2015 20:56 44	6/12/2015 14:01 59	7/12/2015 19:06 61
29/11/2015 17:46 61	30/11/2015 22:51 60	3/12/2015 19:56 60	5/12/2015 21:01 62	6/12/2015 14:06 54	7/12/2015 19:11 60
29/11/2015 17:51 61	30/11/2015 22:56 60	3/12/2015 20:01 61	5/12/2015 21:06 62	6/12/2015 14:11 53	7/12/2015 19:16 60
29/11/2015 17:56 61	1/12/2015 19:01 61	3/12/2015 20:06 61	5/12/2015 21:11 61	6/12/2015 14:16 40	7/12/2015 19:21 61
29/11/2015 18:01 61	1/12/2015 19:06 52	3/12/2015 20:11 61	5/12/2015 21:16 58	6/12/2015 14:21 46	7/12/2015 19:

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)					
7/12/2015 21:26	61	9/12/2015 22:31	62	12/12/2015 19:36	56	13/12/2015 12:41	62
7/12/2015 21:31	61	9/12/2015 22:36	57	12/12/2015 19:41	59	13/12/2015 12:46	61
7/12/2015 21:36	61	9/12/2015 22:41	62	12/12/2015 19:46	60	13/12/2015 12:51	62
7/12/2015 21:41	49	9/12/2015 22:46	58	12/12/2015 19:51	58	13/12/2015 12:56	52
7/12/2015 21:46	62	9/12/2015 22:51	59	12/12/2015 19:56	58	13/12/2015 13:01	59
7/12/2015 21:51	52	9/12/2015 22:56	61	12/12/2015 20:01	62	13/12/2015 13:06	61
7/12/2015 21:56	61	10/12/2015 19:01	61	12/12/2015 20:06	61	13/12/2015 13:11	61
7/12/2015 22:01	61	10/12/2015 19:06	62	12/12/2015 20:11	62	13/12/2015 13:16	62
7/12/2015 22:06	60	10/12/2015 19:11	60	12/12/2015 20:16	61	13/12/2015 13:21	62
7/12/2015 22:11	61	10/12/2015 19:16	60	12/12/2015 20:21	61	13/12/2015 13:26	52
7/12/2015 22:16	60	10/12/2015 19:21	60	12/12/2015 20:26	62	13/12/2015 13:31	50
7/12/2015 22:21	61	10/12/2015 19:26	59	12/12/2015 20:31	61	13/12/2015 13:36	54
7/12/2015 22:26	62	10/12/2015 19:31	60	12/12/2015 20:36	61	13/12/2015 13:41	62
7/12/2015 22:31	61	10/12/2015 19:36	61	12/12/2015 20:41	61	13/12/2015 13:46	57
7/12/2015 22:36	61	10/12/2015 19:41	61	12/12/2015 20:46	61	13/12/2015 13:51	54
7/12/2015 22:41	60	10/12/2015 19:46	60	12/12/2015 20:51	61	13/12/2015 13:56	55
7/12/2015 22:46	61	10/12/2015 19:51	49	12/12/2015 20:56	62	13/12/2015 14:01	46
7/12/2015 22:51	60	10/12/2015 19:56	61	12/12/2015 21:01	61	13/12/2015 14:06	62
7/12/2015 22:56	61	10/12/2015 20:01	61	12/12/2015 21:06	61	13/12/2015 14:11	62
8/12/2015 19:01	62	10/12/2015 20:06	43	12/12/2015 21:11	62	13/12/2015 14:16	62
8/12/2015 19:06	55	10/12/2015 20:11	49	12/12/2015 21:16	60	13/12/2015 14:21	61
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8/12/2015 19:16	52	10/12/2015 20:21	43	12/12/2015 21:26	62	13/12/2015 14:31	62
8/12/2015 19:21	52	10/12/2015 20:26	61	12/12/2015 21:31	61	13/12/2015 14:36	56
8/12/2015 19:26	56	10/12/2015 20:31	61	12/12/2015 21:36	60	13/12/2015 14:41	52
8/12/2015 19:31	62	10/12/2015 20:36	61	12/12/2015 21:41	60	13/12/2015 14:46	45
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8/12/2015 19:41	49	10/12/2015 20:46	62	12/12/2015 21:51	61	13/12/2015 14:56	39
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Real-time Noise Data	RTN2a (Hong Kong Electric Centre)				
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19/12/2015 22:16 62	20/12/2015 15:21 43	21/12/2015 20:26 52	23/12/2015 21:31 61	25/12/2015 10:36 61	25/12/2015 19:41 55
19/12/2015 22:21 60	20/12/2015 15:26 62	21/12/2015 20:31 55	23/12/2015 21:36 61	25/12/2015 10:41 60	25/12/2015 19:46 61
19/12/2015 22:26 61	20/12/2015 15:31 62	21/12/2015 20:36 61	23/12/2015 21:41 62	25/12/2015 10:46 60	25/12/2015 19:51 62
19/12/2015 22:31 61	20/12/2015 15:36 52	21/12/2015 20:41 61	23/12/2015 21:46 61	25/12/2015 10:51 58	25/12/2015 19:56 61
19/12/2015 22:36 60	20/12/2015 15:41 62	21/12/2015 20:46 61	23/12/2015 21:51 61	25/12/2015 10:56 58	25/12/2015 20:01 61
19/12/2015 22:41 60	20/12/2015 15:46 49	21/12/2015 20:51 49	23/12/2015 21:56 46	25/12/2015 11:01 56	25/12/2015 20:06 62
19/12/2015 22:46 62	20/12/2015 15:51 51	21/12/2015 20:56 61	23/12/2015 22:01 58	25/12/2015 11:0	

Real-time Noise Data	RTN2a (Hong Kong Electric Centre)				
25/12/2015 22:26 55	26/12/2015 15:31 59	28/11/2015 1:21 48	29/11/2015 2:26 58	30/11/2015 3:31 54	1/12/2015 4:36 54
25/12/2015 22:31 61	26/12/2015 15:36 60	28/11/2015 1:26 51	29/11/2015 2:31 57	30/11/2015 3:36 55	1/12/2015 4:41 54
25/12/2015 22:36 61	26/12/2015 15:41 58	28/11/2015 1:31 47	29/11/2015 2:36 57	30/11/2015 3:41 54	1/12/2015 4:46 57
25/12/2015 22:41 60	26/12/2015 15:46 57	28/11/2015 1:36 45	29/11/2015 2:41 58	30/11/2015 3:46 55	1/12/2015 4:51 56
25/12/2015 22:46 61	26/12/2015 15:51 54	28/11/2015 1:41 50	29/11/2015 2:46 57	30/11/2015 3:51 55	1/12/2015 4:56 55
25/12/2015 22:51 62	26/12/2015 15:56 57	28/11/2015 1:46 58	29/11/2015 2:51 57	30/11/2015 3:56 55	1/12/2015 5:01 55
25/12/2015 22:56 61	26/12/2015 16:01 57	28/11/2015 1:51 43	29/11/2015 2:56 57	30/11/2015 4:01 54	1/12/2015 5:06 55
26/12/2015 7:01 59	26/12/2015 16:06 55	28/11/2015 1:56 48	29/11/2015 3:01 56	30/11/2015 4:06 54	1/12/2015 5:11 56
26/12/2015 7:06 59	26/12/2015 16:11 59	28/11/2015 2:01 44	29/11/2015 3:06 57	30/11/2015 4:11 54	1/12/2015 5:16 56
26/12/2015 7:11 60	26/12/2015 16:16 56	28/11/2015 2:06 48	29/11/2015 3:11 56	30/11/2015 4:16 55	1/12/2015 5:21 56
26/12/2015 7:16 60	26/12/2015 16:21 57	28/11/2015 2:11 48	29/11/2015 3:16 56	30/11/2015 4:21 54	1/12/2015 5:26 56
26/12/2015 7:21 60	26/12/2015 16:26 57	28/11/2015 2:16 43	29/11/2015 3:21 57	30/11/2015 4:26 55	1/12/2015 5:31 56
26/12/2015 7:26 60	26/12/2015 16:31 47	28/11/2015 2:21 58	29/11/2015 3:26 56	30/11/2015 4:31 55	1/12/2015 5:36 57
26/12/2015 7:31 61	26/12/2015 16:36 54	28/11/2015 2:26 58	29/11/2015 3:31 57	30/11/2015 4:36 54	1/12/2015 5:41 56
26/12/2015 7:36 60	26/12/2015 16:41 55	28/11/2015 2:31 58	29/11/2015 3:36 57	30/11/2015 4:41 54	1/12/2015 5:46 57
26/12/2015 7:41 60	26/12/2015 16:46 57	28/11/2015 2:36 58	29/11/2015 3:41 58	30/11/2015 4:46 55	1/12/2015 5:51 56
26/12/2015 7:46 61	26/12/2015 16:51 59	28/11/2015 2:41 58	29/11/2015 3:46 57	30/11/2015 4:51 55	1/12/2015 5:56 58
26/12/2015 7:51 61	26/12/2015 16:56 58	28/11/2015 2:46 58	29/11/2015 3:51 57	30/11/2015 4:56 55	1/12/2015 6:01 57
26/12/2015 7:56 61	26/12/2015 17:01 59	28/11/2015 2:51 57	29/11/2015 3:56 56	30/11/2015 5:01 55	1/12/2015 6:06 57
26/12/2015 8:01 61	26/12/2015 17:06 57	28/11/2015 2:56 57	29/11/2015 4:01 55	30/11/2015 5:06 55	1/12/2015 6:11 58
26/12/2015 8:06 61	26/12/2015 17:11 57	28/11/2015 3:01 58	29/11/2015 4:06 56	30/11/2015 5:11 56	1/12/2015 6:16 58
26/12/2015 8:11 62	26/12/2015 17:16 57	28/11/2015 3:06 58	29/11/2015 4:11 56	30/11/2015 5:16 56	1/12/2015 6:21 52
26/12/2015 8:16 61	26/12/2015 17:21 58	28/11/2015 3:11 57	29/11/2015 4:16 56	30/11/2015 5:21 56	1/12/2015 6:26 51
26/12/2015 8:21 51	26/12/2015 17:26 57	28/11/2015 3:16 57	29/11/2015 4:21 56	30/11/2015 5:26 57	1/12/2015 6:31 52
26/12/2015 8:26 61	26/12/2015 17:31 58	28/11/2015 3:21 56	29/11/2015 4:26 56	30/11/2015 5:31 57	1/12/2015 6:36 52
26/12/2015 8:31 58	26/12/2015 17:36 56	28/11/2015 3:26 58	29/11/2015 4:31 57	30/11/2015 5:36 56	1/12/2015 6:41 54
26/12/2015 8:36 61	26/12/2015 17:41 55	28/11/2015 3:31 57	29/11/2015 4:36 56	30/11/2015 5:41 56	1/12/2015 6:46 56
26/12/2015 8:41 57	26/12/2015 17:46 57	28/11/2015 3:36 57	29/11/2015 4:41 57	30/11/2015 5:46 57	1/12/2015 6:51 56
26/12/2015 8:46 58	26/12/2015 17:51 55	28/11/2015 3:41 57	29/11/2015 4:46 57	30/11/2015 5:51 57	1/12/2015 6:56 58
26/12/2015 8:51 54	26/12/2015 17:56 56	28/11/2015 3:46 57	29/11/2015 4:51 56	30/11/2015 5:56 58	1/12/2015 23:01 57
26/12/2015 8:56 58	26/12/2015 18:01 57	28/11/2015 3:51 57	29/11/2015 4:56 57	30/11/2015 6:01 57	1/12/2015 23:06 54
26/12/2015 9:01 54	26/12/2015 18:06 56	28/11/2015 3:56 57	29/11/2015 5:01 56	30/11/2015 6:06 57	1/12/2015 23:11 56
26/12/2015 9:06 56	26/12/2015 18:11 59	28/11/2015 4:01 57	29/11/2015 5:06 56	30/11/2015 6:11 58	1/12/2015 23:16 56
26/12/2015 9:11 56	26/12/2015 18:16 58	28/11/2015 4:06 57	29/11/2015 5:11 57	30/11/2015 6:16 48	1/12/2015 23:21 54
26/12/2015 9:16 59	26/12/2015 18:21 57	28/11/2015 4:11 56	29/11/2015 5:16 57	30/11/2015 6:21 48	1/12/2015 23:26 54
26/12/2015 9:21 58	26/12/2015 18:26 57	28/11/2015 4:16 56	29/11/2015 5:21 56	30/11/2015 6:26 53	1/12/2015 23:31 55
26/12/2015 9:26 55	26/12/2015 18:31 59	28/11/2015 4:21 56	29/11/2015 5:26 57	30/11/2015 6:31 52	1/12/2015 23:36 53
26/12/2015 9:31 57	26/12/2015 18:36 50	28/11/2015 4:26 58	29/11/2015 5:31 56	30/11/2015 6:36 53	1/12/2015 23:41 52
26/12/2015 9:36 60	26/12/2015 18:41 50	28/11/2015 4:31 57	29/11/2015 5:36 57	30/11/2015 6:41 56	1/12/2015 23:46 51
26/12/2015 9:41 59	26/12/2015 18:46 55	28/11/2015 4:36 56	29/11/2015 5:41 56	30/11/2015 6:46 57	1/12/2015 23:51 51
26/12/2015 9:46 59	26/12/2015 18:51 57	28/11/2015 4:41 56	29/11/2015 5:46 57	30/11/2015 6:51 57	1/12/2015 23:56 49
26/12/2015 9:51 56	26/12/2015 18:56 53	28/11/2015 4:46 57	29/11/2015 5:51 56	30/11/2015 6:56 58	2/12/2015 0:01 52
26/12/2015 9:56 57	26/12/2015 19:01 57	28/11/2015 4:51 58	29/11/2015 5:56 57	30/11/2015 23:01 56	2/12/2015 0:06 52
26/12/2015 10:01 56	26/12/2015 19:06 53	28/11/2015 4:56 56	29/11/2015 6:01 57	30/11/2015 23:06 55	2/12/2015 0:11 49
26/12/2015 10:06 57	26/12/2015 19:11 55	28/11/2015 5:01 56	29/11/2015 6:06 57	30/11/2015 23:11 54	2/12/2015 0:16 47
26/12/2015 10:11 56	26/12/2015 19:16 51	28/11/2015 5:06 56	29/11/2015 6:11 57	30/11/2015 23:16 54	2/12/2015 0:21 53
26/12/2015 10:16 57	26/12/2015 19:21 42	28/11/2015 5:11 57	29/11/2015 6:16 58	30/11/2015 23:21 55	2/12/2015 0:26 45
26/12/2015 10:21 58	26/12/2015 19:26 56	28/11/2015 5:16 57	29/11/2015 6:21 58	30/11/2015 23:26 53	2/12/2015 0:31 58
26/12/2015 10:26 57	26/12/2015 19:31 51	28/11/2015 5:21 57	29/11/2015 6:26 58	30/11/2015 23:31 50	2/12/2015 0:36 42
26/12/2015 10:31 57	26/12/2015 19:36 62	28/11/2015 5:26 57	29/11/2015 6:31 58	30/11/2015 23:36 52	2/12/2015 0:41 58
26/12/2015 10:36 58	26/12/2015 19:41 51	28/11/2015 5:31 57	29/11/2015 6:36 58	30/11/2015 23:41 54	2/12/2015 0:46 58
26/12/2015 10:41 61	26/12/2015 19:46 62	28/11/2015 5:36 57	29/11/2015 6:41 53	30/11/2015 23:46 53	2/12/2015 0:51 58
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26/12/2015 10:51 58	26/12/2015 19:56 61	28/11/2015 5:46 58	29/11/2015 6:51 50	30/11/2015 23:56 49	2/12/2015 1:01 57
26/12/2015 10:56 58	26/12/2015 20:01 62	28/11/2015 5:51 57	29/11/2015 6:56 50	1/12/2015 0:01 50	2/12/2015 1:06 58
26/12/2015 11:01 58	26/12/2015 20:06 60	28/11/2015 5:56 58	29/11/2015 23:01 57	1/12/2015 0:06 44	2/12/2015 1:11 58
26/12/2015 11:06 59	26/12/2015 20:11 61	28/11/2015 6:01 57	29/11/2015 23:06 54	1/12/2015 0:11 58	2/12/2015 1:16 58
26/12/2015 11:11 60	26/12/2015 20:16 61	28/11/2015 6:06 57	29/11/2015 23:11 55	1/12/2015 0:16 47	2/12/2015 1:21 57
26/12/2015 11:16 60	26/12/2015 20:21 61	28/11/2015 6:11 58	29/11/2015 23:16 55	1/12/2015 0:21 58	2/12/2015 1:26 57
26/12/2015 11:21 63	26/12/2015 20:26 61	28/11/2015 6:16 58	29/11/2015 23:21 55	1/12/2015 0:26 45	2/12/2015 1:31 58
26/12/2015 11:26 61	26/12/2015 20:31 61	28/11/2015 6:21 40	29/11/2015 23:26 54	1/12/2015 0:31 42	2/12/2015 1:36 57
26/12/2015 11:31 62	26/12/2015 20:36 62	28/11/2015 6:26 49	29/11/2015 23:31 53	1/12/2015 0:36 50	2/12/2015 1:41 57
26/12/2015 11:36 62	26/12/2015 20:41 61	28/11/2015 6:31 42	29/11/2015 23:36 54	1/12/2015 0:41 57	2/12/2015 1:46 57
26/12/2015 11:41 58	26/12/2015 20:46 60	28/11/2015 6:36 49	29/11/2015 23:41 50	1/12/2015 0:46 58	2/12/2015 1:51 56
26/12/2015 11:46 62	26/12/2015 20:51 61	28/11/2015 6:41 55	29/11/2015 23:46 51	1/12/2015 0:51 58	2/12/2015 1:56 56
26/12/2015 11:51 56	26/12/2015 20:56 61	28/11/2015 6:46 53	29/11/2015 23:51 54	1/12/2015 0:56 57	2/12/2015 2:01 56
26/12/2015 11:56 60	26/12/2015 21:01 61	28/11/2015 6:51 58	29/11/2015 23:56 49	1/12/2015 1:01 58	2/12/2015 2:06 55
26/12/2015 12:01 56	26/12/2015 21:06 61	28/11/2015 6:56 57	30/11/2015 0:01 54	1/12/2015 1:06 58	2/12/2015 2:11 57
26/12/2015 12:06 53	26/12/2015 21:11 61	28/11/2015 23:01 56	30/11/2015 0:06 58	1/12/2015 1:11 57	2/12/2015 2:16 56
26/12/2015 12:11 52	26/12/2015 21:16 62	28/11/2015 23:06 57	30/11/2015 0:11 48	1/12/2015 1:16 58	2/12/2015 2:21 57
26/12/2015 12:16 51	26/12/2015 21:21 61	28/11/2015 23:11 56	30/11/2015 0:16 50	1/12/2015 1:21 53	2/12/2015 2:26 56
26/12/2015 12:21 54	26/12/2015 21:26 61	28/11/2015 23:16 55	30/11/2015 0:21 44	1/12/2015 1:26 57	2/12/2015 2:31 56
26/12/2015 12:26 52	26/12/2015 21:31 61	28/11/2015 23:21 54	30/11/2015 0:26 50	1/12/2015 1:31 57	2/12/2015 2:36 56
26/12/2015 12:31 63	26/12/2015 21:36 62	28/11/2015 23:26 55	30/11/2015 0:31 58	1/12/2015 1:36 56	2/12/2015 2:41 55
26/12/2015 12:36 53	26/12/2015 21:41 61	28/11/2015 23:31 54	30/11/2015 0:36 58	1/12/2015 1:41 57	2/12/2015 2:46 56
26/12/2015 12:41 62	26/12/2015 21:46 51	28/11/2015 23:36 54	30/11/2015 0:41 58	1/12/2015 1:46 57	2/12/2015 2:51 56
26/12/2015 12:46 58	26/12/2015 21:51 61	28/11/2015 23:41 53	30/11/2015 0:46 58	1/12/2015 1:51 56	2/12/2015 2:56 56
26/12/2015 12:51 60	26/12/2015 21:56 62	28/11/2015 23:46 55	30/11/2015 0:51 57	1/12/2015 1:56 57	2/12/2015 3:01 57
26/12/2015 12:56 61	26/12/2015 22:01 61	28/11/2015 23:51 53	30/11/2015 0:56 57	1/12/2015 2:01 57	2/12/2015 3:06 55
26/12/2015 13:01 61	26/12/2015 22:06 62	28/11/2015 23:56 54	30/11/2015 1:01 57	1/12/2015 2:06 56	2/12/2015 3:11 55
26/12/2015 13:06 60	26/12/2015 22:11 61	29/11/2015 0:01 54	30/11/2015 1:06 56	1/12/2015 2:11 56	2/12/2015 3:16 55
26/12/2015 13:11 61	26/12/2015 22:16 61	29/11/2015 0:06 53	30/11/2015 1:11 57	1/12/2015 2:16 55	2/12/2015 3:21 56
26/12/2015 13:16 61	26/12/2015 22:21 53	29/11/2015 0:11 53	30/11/2015 1:16 57	1/12/2015 2:21 55	2/12/2015 3:26 55
26/12/2015 13:21 58	26/12/2015 22:26 61	29/11/2015 0:16 54	30/11/2015 1:21 57	1/12/2015 2:26 56	2/12/2015 3:31 55
26/12/2015 13:26 63	26/12/2015 22:31 62	29/11/2015 0:21 47	30/11/2015 1:26 57	1/12/2015 2:31 55	2/12/2015 3:36 55
26/12/2015 13:31 62	26/12/2015 22:36 61	29/11/2015 0:26 51	30/11/2015 1:31 56	1/12/2015 2:36 56	2/12/2015 3:41 56
26/12/2015 13:36 60	26/12/201				

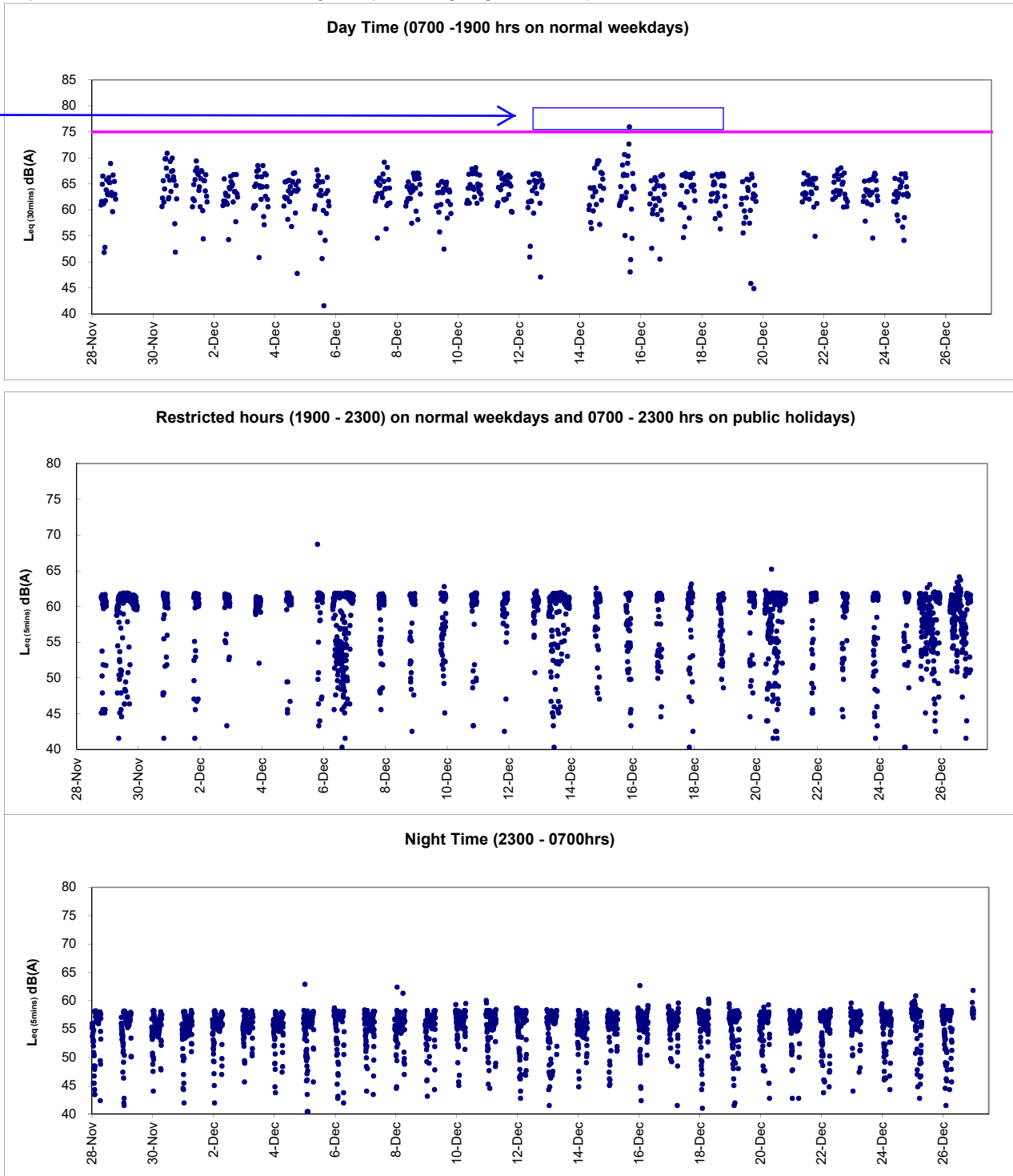
Real-time Noise Data		RTN2a (Hong Kong Electric Centre)	
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2/12/2015 5:46	57	3/12/2015 6:51	58
2/12/2015 5:51	57	3/12/2015 6:56	57
2/12/2015 5:56	57	3/12/2015 23:01	56
2/12/2015 6:01	56	3/12/2015 23:06	56
2/12/2015 6:06	57	3/12/2015 23:11	56
2/12/2015 6:11	58	3/12/2015 23:16	57
2/12/2015 6:16	58	3/12/2015 23:21	54
2/12/2015 6:21	47	3/12/2015 23:26	55
2/12/2015 6:26	48	3/12/2015 23:31	55
2/12/2015 6:31	50	3/12/2015 23:36	55
2/12/2015 6:36	52	3/12/2015 23:41	54
2/12/2015 6:41	56	3/12/2015 23:46	55
2/12/2015 6:46	56	3/12/2015 23:51	52
2/12/2015 6:51	57	3/12/2015 23:56	55
2/12/2015 6:56	58	4/12/2015 0:01	52
2/12/2015 23:01	58	4/12/2015 0:06	53
2/12/2015 23:06	55	4/12/2015 0:11	49
2/12/2015 23:11	55	4/12/2015 0:16	53
2/12/2015 23:16	56	4/12/2015 0:21	49
2/12/2015 23:21	55	4/12/2015 0:26	45
2/12/2015 23:26	54	4/12/2015 0:31	51
2/12/2015 23:31	53	4/12/2015 0:36	48
2/12/2015 23:36	54	4/12/2015 0:41	58
2/12/2015 23:41	56	4/12/2015 0:46	39
2/12/2015 23:46	53	4/12/2015 0:51	44
2/12/2015 23:51	52	4/12/2015 0:56	58
2/12/2015 23:56	55	4/12/2015 1:01	58
3/12/2015 0:01	57	4/12/2015 1:06	58
3/12/2015 0:06	57	4/12/2015 1:11	58
3/12/2015 0:11	54	4/12/2015 1:16	57
3/12/2015 0:16	49	4/12/2015 1:21	58
3/12/2015 0:21	46	4/12/2015 1:26	57
3/12/2015 0:26	49	4/12/2015 1:31	58
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3/12/2015 0:36	58	4/12/2015 1:41	57
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3/12/2015 0:46	58	4/12/2015 1:51	57
3/12/2015 0:51	58	4/12/2015 1:56	57
3/12/2015 0:56	58	4/12/2015 2:01	57
3/12/2015 1:01	58	4/12/2015 2:06	57
3/12/2015 1:06	57	4/12/2015 2:11	57
3/12/2015 1:11	58	4/12/2015 2:16	57
3/12/2015 1:16	58	4/12/2015 2:21	56
3/12/2015 1:21	57	4/12/2015 2:26	56
3/12/2015 1:26	58	4/12/2015 2:31	56
3/12/2015 1:31	58	4/12/2015 2:36	56
3/12/2015 1:36	58	4/12/2015 2:41	57
3/12/2015 1:41	58	4/12/2015 2:46	56
3/12/2015 1:46	58	4/12/2015 2:51	56
3/12/2015 1:51	58	4/12/2015 2:56	56
3/12/2015 1:56	58	4/12/2015 3:01	56
3/12/2015 2:01	57	4/12/2015 3:06	56
3/12/2015 2:06	57	4/12/2015 3:11	55
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3/12/2015 2:31	55	4/12/2015 3:36	56
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3/12/2015 2:41	56	4/12/2015 3:46	55
3/12/2015 2:46	56	4/12/2015 3:51	55
3/12/2015 2:51	56	4/12/2015 3:56	56
3/12/2015 2:56	56	4/12/2015 4:01	55
3/12/2015 3:01	55	4/12/2015 4:06	55
3/12/2015 3:06	57	4/12/2015 4:11	55
3/12/2015 3:11	56	4/12/2015 4:16	55
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3/12/2015 3:41	55	4/12/2015 4:46	56
3/12/2015 3:46	55	4/12/2015 4:51	55
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3/12/2015 4:01	55	4/12/2015 5:06	56
3/12/2015 4:06	55	4/12/2015 5:11	55
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3/12/2015 4:16	56	4/12/2015 5:21	56
3/12/2015 4:21	56	4/12/2015 5:26	57
3/12/2015 4:26	55	4/12/2015 5:31	56
3/12/2015 4:31	55	4/12/2015 5:36	56
3/12/2015 4:36	56	4/12/2015 5:41	58
3/12/2015 4:41	56	4/12/2015 5:46	57
3/12/2015 4:46	56	4/12/2015 5:51	57
3/12/2015 4:51	56	4/12/2015 5:56	57
3/12/2015 4:56	55	4/12/2015 6:01	47
3/12/2015 5:01	55	4/12/2015 6:06	58
3/12/2015 5:06	56	4/12/2015 6:11	58
3/12/2015 5:11	57	4/12/2015 6:16	57
3/12/2015 5:16	55	4/12/2015 6:21	48
3/12/2015 5:21	56	4/12/2015 6:26	40
3/12/2015 5:26	57	4/12/2015 6:31	51
3/12/2015 5:31	56	4/12/2015 6:36	54
3/12/2015 5:36	56	4/12/2015 6:41	55
3/12/2015 5:41	57	4/12/2015 6:46	54
3/12/2015 5:46	57	4/12/2015 6:51	56
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3/12/2015 5:56	57	4/12/2015 23:01	56
3/12/2015 6:01	58	4/12/2015 23:06	57
3/12/2015 6:06	57	4/12/2015 23:11	56
3/12/2015 6:11	58	4/12/2015 23:16	58
3/12/2015 6:16	35	4/12/2015 23:21	56
3/12/2015 6:21	51	4/12/2015 23:26	55
3/12/2015 6:26	50	4/12/2015 23:31	57
3/12/2015 6:31	52	4/12/2015 23:36	55
3/12/2015 6:36	53	4/12/2015 23:41	57
3/12/2015 6:41	55	4/12/2015 23:46	56
6/12/2015 0:56	53	5/12/2015 23:56	57
6/12/2015 1:01	53	5/12/2015 0:01	57
6/12/2015 1:06	52	5/12/2015 0:06	63
6/12/2015 1:11	50	5/12/2015 0:11	54
6/12/2015 1:16	57	5/12/2015 0:16	55
6/12/2015 1:21	51	5/12/2015 0:21	54
6/12/2015 1:26	52	5/12/2015 0:26	55
6/12/2015 1:31	55	5/12/2015 0:31	55
6/12/2015 1:36	45	5/12/2015 0:36	50
6/12/2015 1:41	39	5/12/2015 0:41	54
6/12/2015 1:46	51	5/12/2015 0:46	50
6/12/2015 1:51	43	5/12/2015 0:51	50
6/12/2015 1:56	53	5/12/2015 0:56	51
6/12/2015 2:01	47	5/12/2015 1:01	51
6/12/2015 2:06	49	5/12/2015 1:06	54
6/12/2015 2:11	43	5/12/2015 1:11	49
6/12/2015 2:16	47	5/12/2015 1:16	46
6/12/2015 2:21	58	5/12/2015 1:21	53
6/12/2015 2:26	58	5/12/2015 1:26	50
6/12/2015 2:31	49	5/12/2015 1:31	51
6/12/2015 2:36	58	5/12/2015 1:36	48
6/12/2015 2:41	57	5/12/2015 1:41	47
6/12/2015 2:46	58	5/12/2015 1:46	46
6/12/2015 2:51	58	5/12/2015 1:51	43
6/12/2015 2:56	58	5/12/2015 1:56	40
6/12/2015 3:01	58	5/12/2015 2:01	50
6/12/2015 3:06	58	5/12/2015 2:06	58
6/12/2015 3:11	57	5/12/2015 2:11	58
6/12/2015 3:16	57	5/12/2015 2:16	48
6/12/2015 3:21	58	5/12/2015 2:21	40
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6/12/2015 3:31	58	5/12/2015 2:31	58
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6/12/2015 3:41	58	5/12/2015 2:41	57
6/12/2015 3:46	57	5/12/2015 2:46	57
6/12/2015 3:51	57	5/12/2015 2:51	58
6/12/2015 3:56	57	5/12/2015 2:56	57
6/12/2015 4:01	57	5/12/2015 3:01	57
6/12/2015 4:06	57	5/12/2015 3:06	57
6/12/2015 4:11	58	5/12/2015 3:11	57
6/12/2015 4:16	57	5/12/2015 3:16	58
6/12/2015 4:21	57	5/12/2015 3:21	56
6/12/2015 4:26	57	5/12/2015 3:26	57
6/12/2015 4:31	57	5/12/2015 3:31	57
6/12/2015 4:36	57	5/12/2015 3:36	57
6/12/2015 4:41	57	5/12/2015 3:41	57
6/12/2015 4:46	57	5/12/2015 3:46	56
6/12/2015 4:51	57	5/12/2015 3:51	56
6/12/2015 4:56	57	5/12/2015 3:56	56
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6/12/2015 5:06	57	5/12/2015 4:06	56
6/12/2015 5:11	57	5/12/2015 4:11	55
6/12/2015 5:16	57	5/12/2015 4:16	56
6/12/2015 5:21	57	5/12/2015 4:21	55
6/12/2015 5:26	57	5/12/2015 4:26	56
6/12/2015 5:31	57	5/12/2015 4:31	57
6/12/2015 5:36	56	5/12/2015 4:36	56
6/12/2015 5:41	58	5/12/2015 4:41	57
6/12/2015 5:46	58	5/12/2015 4:46	55
6/12/2015 5:51	58	5/12/2015 4:51	56
6/12/2015 5:56	57	5/12/2015 4:56	56
6/12/2015 6:01	57	5/12/2015 5:01	56
6/12/2015 6:06	58	5/12/2015 5:06	58
6/12/2015 6:11	58	5/12/2015 5:11	58
6/12/2015 6:16	58	5/12/2015 5:16	56
6/12/2015 6:21	58	5/12/2015 5:21	57
6/12/2015 6:26	58	5/12/2015 5:26	56
6/12/2015 6:31	58	5/12/2015 5:31	56
6/12/2015 6:36	42	5/12/2015 5:36	56
6/12/2015 6:41	51	5/12/2015 5:41	56
6/12/2015 6:46	52	5/12/2015 5:46	57
6/12/2015 6:51	52	5/12/2015 5:51	57
6/12/2015 6:56	55	5/12/2015 5:56	57
7/12/2015 0:01	52	5/12/2015 6:01	58
7/12/2015 0:06	53	5/12/2015 6:06	58
7/12/2015 0:11	51	5/12/2015 6:11	58
7/12/2015 0:16	53	5/12/2015 6:16	57
7/12/2015 0:21	54	5/12/2015 6:21	58
7/12/2015 0:26	52	5/12/2015 6:26	58
7/12/2015 0:31	48	5/12/2015 6:31	57
7/12/2015 0:36	50	5/12/2015 6:36	58
7/12/2015 0:41	55	5/12/2015 6:41	55
7/12/2015 0:46	44	5/12/2015 6:46	54
7/12/2015 0:51	58	5/12/2015 6:51	58
7/12/2015 0:56	58	5/12/2015 6:56	57
7/12/2015 1:01	52	5/12/2015 7:01	56
7/12/2015 1:06	57	5/12/2015 7:06	57
7/12/2015 1:11	58	5/12/2015 7:11	57
7/12/2015 1:16	48	5/12/2015 7:16	57
7/12/2015 1:21	58	5/12/2015 7:21	57
7/12/2015 1:26	58	5/12/2015 7:26	57
7/12/2015 1:31	58	5/12/2015 7:31	57
7/12/2015 1:36	57	5/12/2015 7:36	57
7/12/2015 1:41	58	5/12/2015 7:41	57
7/12/2015 1:46	57	5/12/2015 7:46	57
7/12/2015 1:51	56	5/12/2015 7:51	56
7/12/2015 1:56	56	5/12/2015 7:56	56
8/12/2015 2:01	55	5/12/2015 8:01	56
8/12/2015 2:06	56	5/12/2015 8:06	56
8/12/2015 2:11	57	5/12/2015 8:11	56
8/12/2015 2:16	56	5/12/2015 8:16	56
8/12/2015 2:21	58	5/12/2015 8:21	56
8/12/2015 2:26	56	5/12/2015 8:26	56
8/12/2015 2:31	57	5/12/2015 8:31	56
8/12/2015 2:36	56	5/12/2015 8:36	56
8/12/2015 2:41	57	5/12/2015 8:41	56

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)					
9/12/2015 4:11	56	10/12/2015 5:16	57	11/12/2015 6:21	58	12/12/2015 23:26	56
9/12/2015 4:16	55	10/12/2015 5:21	57	11/12/2015 6:26	48	12/12/2015 23:31	56
9/12/2015 4:21	55	10/12/2015 5:26	57	11/12/2015 6:31	53	12/12/2015 23:36	56
9/12/2015 4:26	56	10/12/2015 5:31	57	11/12/2015 6:36	49	12/12/2015 23:41	58
9/12/2015 4:31	56	10/12/2015 5:36	57	11/12/2015 6:41	56	12/12/2015 23:46	57
9/12/2015 4:36	56	10/12/2015 5:41	57	11/12/2015 6:46	56	12/12/2015 23:51	56
9/12/2015 4:41	56	10/12/2015 5:46	58	11/12/2015 6:51	57	12/12/2015 23:56	56
9/12/2015 4:46	56	10/12/2015 5:51	58	11/12/2015 6:56	58	13/12/2015 0:01	56
9/12/2015 4:51	56	10/12/2015 5:56	58	11/12/2015 23:01	59	13/12/2015 0:06	53
9/12/2015 4:56	56	10/12/2015 6:01	58	11/12/2015 23:06	59	13/12/2015 0:11	54
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9/12/2015 5:11	57	10/12/2015 6:16	58	11/12/2015 23:21	57	13/12/2015 0:26	53
9/12/2015 5:16	57	10/12/2015 6:21	51	11/12/2015 23:26	58	13/12/2015 0:31	52
9/12/2015 5:21	57	10/12/2015 6:26	54	11/12/2015 23:31	57	13/12/2015 0:36	44
9/12/2015 5:26	57	10/12/2015 6:31	55	11/12/2015 23:36	58	13/12/2015 0:41	58
9/12/2015 5:31	58	10/12/2015 6:36	54	11/12/2015 23:41	56	13/12/2015 0:46	47
9/12/2015 5:36	57	10/12/2015 6:41	54	11/12/2015 23:46	57	13/12/2015 0:51	49
9/12/2015 5:41	57	10/12/2015 6:46	57	11/12/2015 23:51	59	13/12/2015 0:56	42
9/12/2015 5:46	57	10/12/2015 6:51	58	11/12/2015 23:56	56	13/12/2015 1:01	53
9/12/2015 5:51	58	10/12/2015 6:56	60	12/12/2015 0:01	56	13/12/2015 1:06	37
9/12/2015 5:56	58	10/12/2015 23:01	58	12/12/2015 0:06	56	13/12/2015 1:11	53
9/12/2015 6:01	58	10/12/2015 23:06	60	12/12/2015 0:11	54	13/12/2015 1:16	47
9/12/2015 6:06	58	10/12/2015 23:11	58	12/12/2015 0:16	56	13/12/2015 1:21	45
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9/12/2015 6:16	35	10/12/2015 23:21	57	12/12/2015 0:26	55	13/12/2015 1:31	53
9/12/2015 6:21	44	10/12/2015 23:26	60	12/12/2015 0:31	54	13/12/2015 1:36	58
9/12/2015 6:26	53	10/12/2015 23:31	58	12/12/2015 0:36	54	13/12/2015 1:41	58
9/12/2015 6:31	52	10/12/2015 23:36	56	12/12/2015 0:41	54	13/12/2015 1:46	58
9/12/2015 6:36	48	10/12/2015 23:41	56	12/12/2015 0:46	54	13/12/2015 1:51	58
9/12/2015 6:41	55	10/12/2015 23:46	56	12/12/2015 0:51	56	13/12/2015 1:56	58
9/12/2015 6:46	56	10/12/2015 23:51	54	12/12/2015 0:56	55	13/12/2015 2:01	58
9/12/2015 6:51	57	10/12/2015 23:56	55	12/12/2015 1:01	52	13/12/2015 2:06	46
9/12/2015 6:56	58	11/12/2015 0:01	55	12/12/2015 1:06	54	13/12/2015 2:11	50
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9/12/2015 23:06	59	11/12/2015 0:11	52	12/12/2015 1:16	51	13/12/2015 2:21	58
9/12/2015 23:11	58	11/12/2015 0:16	51	12/12/2015 1:21	51	13/12/2015 2:26	58
9/12/2015 23:16	58	11/12/2015 0:21	53	12/12/2015 1:26	47	13/12/2015 2:31	58
9/12/2015 23:21	58	11/12/2015 0:26	52	12/12/2015 1:31	51	13/12/2015 2:36	58
9/12/2015 23:26	57	11/12/2015 0:31	50	12/12/2015 1:36	50	13/12/2015 2:41	58
9/12/2015 23:31	57	11/12/2015 0:36	53	12/12/2015 1:41	50	13/12/2015 2:46	58
9/12/2015 23:36	57	11/12/2015 0:41	49	12/12/2015 1:46	48	13/12/2015 2:51	57
9/12/2015 23:41	56	11/12/2015 0:46	52	12/12/2015 1:51	46	13/12/2015 2:56	57
9/12/2015 23:46	56	11/12/2015 0:51	45	12/12/2015 1:56	58	13/12/2015 3:01	57
9/12/2015 23:51	57	11/12/2015 0:56	49	12/12/2015 2:01	50	13/12/2015 3:06	40
9/12/2015 23:56	55	11/12/2015 1:01	58	12/12/2015 2:06	46	13/12/2015 3:11	57
10/12/2015 0:01	56	11/12/2015 1:06	58	12/12/2015 2:11	44	13/12/2015 3:16	58
10/12/2015 0:06	56	11/12/2015 1:11	58	12/12/2015 2:16	43	13/12/2015 3:21	47
10/12/2015 0:11	53	11/12/2015 1:16	58	12/12/2015 2:21	58	13/12/2015 3:26	56
10/12/2015 0:16	55	11/12/2015 1:21	58	12/12/2015 2:26	58	13/12/2015 3:31	57
10/12/2015 0:21	55	11/12/2015 1:26	48	12/12/2015 2:31	47	13/12/2015 3:36	58
10/12/2015 0:26	54	11/12/2015 1:31	58	12/12/2015 2:36	38	13/12/2015 3:41	58
10/12/2015 0:31	53	11/12/2015 1:36	58	12/12/2015 2:41	56	13/12/2015 3:46	57
10/12/2015 0:36	54	11/12/2015 1:41	58	12/12/2015 2:46	58	13/12/2015 3:51	48
10/12/2015 0:41	52	11/12/2015 1:46	57	12/12/2015 2:51	58	13/12/2015 3:56	57
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10/12/2015 0:56	58	11/12/2015 2:01	58	12/12/2015 3:06	58	13/12/2015 4:11	56
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10/12/2015 1:16	58	11/12/2015 2:21	57	12/12/2015 3:26	57	13/12/2015 4:31	56
10/12/2015 1:21	58	11/12/2015 2:26	57	12/12/2015 3:31	57	13/12/2015 4:36	58
10/12/2015 1:26	46	11/12/2015 2:31	58	12/12/2015 3:36	57	13/12/2015 4:41	57
10/12/2015 1:31	45	11/12/2015 2:36	56	12/12/2015 3:41	57	13/12/2015 4:46	56
10/12/2015 1:36	58	11/12/2015 2:41	53	12/12/2015 3:46	58	13/12/2015 4:51	57
10/12/2015 1:41	58	11/12/2015 2:46	58	12/12/2015 3:51	57	13/12/2015 4:56	57
10/12/2015 1:46	58	11/12/2015 2:51	57	12/12/2015 3:56	57	13/12/2015 5:01	57
10/12/2015 1:51	58	11/12/2015 2:56	57	12/12/2015 4:01	58	13/12/2015 5:06	57
10/12/2015 1:56	47	11/12/2015 3:01	56	12/12/2015 4:06	57	13/12/2015 5:11	57
10/12/2015 2:01	58	11/12/2015 3:06	56	12/12/2015 4:11	57	13/12/2015 5:16	56
10/12/2015 2:06	57	11/12/2015 3:11	56	12/12/2015 4:16	57	13/12/2015 5:21	56
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10/12/2015 2:36	58	11/12/2015 3:41	55	12/12/2015 4:46	57	13/12/2015 5:51	57
10/12/2015 2:41	56	11/12/2015 3:46	56	12/12/2015 4:51	57	13/12/2015 5:56	57
10/12/2015 2:46	58	11/12/2015 3:51	55	12/12/2015 4:56	56	13/12/2015 6:01	57
10/12/2015 2:51	57	11/12/2015 3:56	55	12/12/2015 5:01	57	13/12/2015 6:06	57
10/12/2015 2:56	57	11/12/2015 4:01	55	12/12/2015 5:06	57	13/12/2015 6:11	57
10/12/2015 3:01	56	11/12/2015 4:06	56	12/12/2015 5:11	57	13/12/2015 6:16	57
10/12/2015 3:06	56	11/12/2015 4:11	55	12/12/2015 5:16	57	13/12/2015 6:21	57
10/12/2015 3:11	56	11/12/2015 4:16	55	12/12/2015 5:21	56	13/12/2015 6:26	57
10/12/2015 3:16	57	11/12/2015 4:21	56	12/12/2015 5:26	57	13/12/2015 6:31	38
10/12/2015 3:21	55	11/12/2015 4:26	56	12/12/2015 5:31	47	13/12/2015 6:36	58
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10/12/2015 3:31	57	11/12/2015 4:36	57	12/12/2015 5:41	58	13/12/2015 6:46	51
10/12/2015 3:36	57	11/12/2015 4:41	55	12/12/2015 5:46	58	13/12/2015 6:51	58
10/12/2015 3:41	56	11/12/2015 4:46	55	12/12/2015 5:51	57	13/12/2015 6:56	52
10/12/2015 3:46	57	11/12/2015 4:51	55	12/12/2015 5:56	58	13/12/2015 23:01	56
10/12/2015 3:51	56	11/12/2015 4:56	56	12/12/2015 6:01	58	13/12/2015 23:06	57
10/12/2015 3:56	57	11/12/2015 5:01	56	12/12/2015 6:06	58	13/12/2015 23:11	54
10/12/2015 4:01	56	11/12/2015 5:06	55	12/12/2015 6:11	35	13/12/2015 23:16	55
10/12/2015 4:06	55	11/12/2015 5:11	57	12/12/2015 6:16	58	13/12/2015 23:21	54
10/12/2015 4:11	55	11/12/2015 5:16	56	12/12/2015 6:21	47	13/12/2015 23:26	53
10/12/2015 4:16	55	11/12/2015 5:21	56	12/12/2015 6:26	58	13/12/2015 23:31	55
10/12/2015 4:21	55	11/12/2015 5:26	57	12/12/2015 6:31	58	13/12/2015 23:36	54
10/12/2015 4:26	56	11/12/2015 5:31	57	12/12/2015 6:36	50	13/12/2015 23:41	51
10/12/2015 4:31	56	11/12/2015 5:36	57	12/12/2015 6:41	48	13/12/2015 23:46	52
10/12/2015 4:36	57	11/12/2015 5:41	57	12/12/2015 6:46	53	13/12/2015 23:51	52
10/12/2015 4:41	55	11/12/2015 5:46	57	12/12/2015 6:51	51	13/12/2015 23:56	52
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10/12/2015 4:51	55	11/12/2015 5:56	58	12/12/2015 23:01	56	14/12/2015 0:06	45
10/12/2015 4:56	56	11/12/2015 6:01	58	12/12/2015 23:06	57	14/12/2015 0:11	48
10/12/2015 5:01	57	11/12/2015 6:06	57	12/12/2015 23:11	58	14/12/2015 0:16	38
10/12/2015 5:06	57	11/12/2015 6:11	58	12/12/2015 23:16	57	14/12/2015 0:21	57
10/12/2015 5:11	56	11/12/2015 6:16	58				

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)									
16/12/2015 2:41	57	17/12/2015 3:46	56	18/12/2015 4:51	56	19/12/2015 5:56	58	20/12/2015 23:01	58	22/12/2015 0:06	51
16/12/2015 2:46	57	17/12/2015 3:51	55	18/12/2015 4:56	56	19/12/2015 6:01	51	20/12/2015 23:06	57	22/12/2015 0:11	53
16/12/2015 2:51	57	17/12/2015 3:56	57	18/12/2015 5:01	57	19/12/2015 6:06	58	20/12/2015 23:11	57	22/12/2015 0:16	54
16/12/2015 2:56	56	17/12/2015 4:01	57	18/12/2015 5:06	57	19/12/2015 6:11	48	20/12/2015 23:16	57	22/12/2015 0:21	54
16/12/2015 3:01	55	17/12/2015 4:06	57	18/12/2015 5:11	56	19/12/2015 6:16	37	20/12/2015 23:21	56	22/12/2015 0:26	52
16/12/2015 3:06	57	17/12/2015 4:11	55	18/12/2015 5:16	56	19/12/2015 6:21	52	20/12/2015 23:26	58	22/12/2015 0:31	53
16/12/2015 3:11	56	17/12/2015 4:16	57	18/12/2015 5:21	57	19/12/2015 6:26	51	20/12/2015 23:31	57	22/12/2015 0:36	53
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16/12/2015 23:41	58	18/12/2015 0:46	56	19/12/2015 1:51	53	20/12/2015 2:56	58	21/12/2015 4:01	55	22/12/2015 5:06	55
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16/12/2015 23:56	57	18/12/2015 1:01	49	19/12/2015 2:06	50	20/12/2015 3:11	57	21/12/2015 4:16	55	22/12/2015 5:21	56
17/12/2015 0:01	57	18/12/2015 1:06	58	19/12/2015 2:11	52	20/12/2015 3:16	48	21/12/2015 4:21	56	22/12/2015 5:26	58
17/12/2015 0:06	56	18/12/2015 1:11	48	19/12/2015 2:16	52	20/12/2015 3:21	57	21/12/2015 4:26	55	22/12/2015 5:31	57
17/12/2015 0:11	54	18/12/2015 1:16	44	19/12/2015 2:21	48	20/12/2015 3:26	57	21/12/2015 4:31	56	22/12/2015 5:36	57
17/12/2015 0:16	55	18/12/2015 1:21	49	19/12/2015 2:26	50	20/12/2015 3:31	57	21/12/2015 4:36	55	22/12/2015 5:41	57
17/12/2015 0:21	53	18/12/2015 1:26	47	19/12/2015 2:31	46	20/12/2015 3:36	57	21/12/2015 4:41	55	22/12/2015 5:46	58
17/12/2015 0:26	55	18/12/2015 1:31	58	19/12/2015 2:36	58	20/12/2015 3:41	57	21/12/2015 4:46	56	22/12/2015 5:51	58
17/12/2015 0:31	55	18/12/2015 1:36	57	19/12/2015 2:41	58	20/12/2015 3:46	58	21/12/2015 4:51	55	22/12/2015 5:56	58
17/12/2015 0:36	55	18/12/2015 1:41	58	19/12/2015 2:46	45	20/12/2015 3:51	58	21/12/2015 4:56	55	22/12/2015 6:01	45
17/12/2015 0:41	50	18/12/2015 1:46	45	19/12/2015 2:51	42	20/12/2015 3:56	57	21/12/2015 5:01	55	22/12/2015 6:06	58
17/12/2015 0:46											

Real-time Noise Data	RTN2a (Hong Kong Electric Centre)		
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23/12/2015 1:16 58	24/12/2015 2:21 57	25/12/2015 3:26 48	26/12/2015 4:31 57
23/12/2015 1:21 58	24/12/2015 2:26 58	25/12/2015 3:31 55	26/12/2015 4:36 57
23/12/2015 1:26 58	24/12/2015 2:31 58	25/12/2015 3:36 47	26/12/2015 4:41 57
23/12/2015 1:31 57	24/12/2015 2:36 58	25/12/2015 3:41 58	26/12/2015 4:46 57
23/12/2015 1:36 57	24/12/2015 2:41 58	25/12/2015 3:46 58	26/12/2015 4:51 58
23/12/2015 1:41 58	24/12/2015 2:46 50	25/12/2015 3:51 45	26/12/2015 4:56 58
23/12/2015 1:46 57	24/12/2015 2:51 46	25/12/2015 3:56 58	26/12/2015 5:01 44
23/12/2015 1:51 57	24/12/2015 2:56 51	25/12/2015 4:01 58	26/12/2015 5:06 57
23/12/2015 1:56 57	24/12/2015 3:01 58	25/12/2015 4:06 57	26/12/2015 5:11 56
23/12/2015 2:01 58	24/12/2015 3:06 57	25/12/2015 4:11 57	26/12/2015 5:16 57
23/12/2015 2:06 57	24/12/2015 3:11 57	25/12/2015 4:16 57	26/12/2015 5:21 58
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23/12/2015 3:56 55	24/12/2015 5:01 56	25/12/2015 6:06 58	26/12/2015 23:11 58
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24/12/2015 1:21 48	25/12/2015 2:26 57	26/12/2015 3:31 57	
24/12/2015 1:26 51	25/12/2015 2:31 57	26/12/2015 3:36 32	
24/12/2015 1:31 46	25/12/2015 2:36 56	26/12/2015 3:41 58	
24/12/2015 1:36 46	25/12/2015 2:41 55	26/12/2015 3:46 57	
24/12/2015 1:41 51	25/12/2015 2:46 59	26/12/2015 3:51 57	
24/12/2015 1:46 52	25/12/2015 2:51 58	26/12/2015 3:56 58	
24/12/2015 1:51 49	25/12/2015 2:56 57	26/12/2015 4:01 57	
24/12/2015 1:56 52	25/12/2015 3:01 59	26/12/2015 4:06 57	
24/12/2015 2:01 49	25/12/2015 3:06 56	26/12/2015 4:11 57	
24/12/2015 2:06 58	25/12/2015 3:11 57	26/12/2015 4:16 57	
24/12/2015 2:11 58	25/12/2015 3:16 53	26/12/2015 4:21 57	

Graphic Presentation of Real Time Noise Monitoring Result (RTN2a- Hong Kong Electric Centre)



After checking with Contractor of HY/2009/19, on 15 December 2015, concreting was undertaken by Contract HY/2009/19 while steel bar cutting works for Hong Kong Electric Centre was conducted at the roof top by non-CWB Contractor immediately next to the noise monitoring station. In view of the mitigation measures implemented and the non-CWB works conducted next to the monitoring station as major noise contribution, the exceedance was considered as non-Project related.



Appendix 6.1

Event Action Plans



Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	<ol style="list-style-type: none">1. Notify ER, IEC and Contractor;2. Carry out investigation;3. Report the results of investigation to the IEC, ER and Contractor;4. Discuss with the IEC and Contractor on remedial measures required;5. Increase monitoring frequency to check mitigation effectiveness. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Review the investigation results submitted by the ET;2. Review the proposed remedial measures by the Contractor and advise the ER accordingly;3. Advise the ER on the effectiveness of the proposed remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Confirm receipt of notification of failure in writing;2. Notify Contractor;3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;4. Supervise the implementation of remedial measures. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Submit noise mitigation proposals to IEC and ER;2. Implement noise mitigation proposals. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>



EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit Level being exceeded	<ol style="list-style-type: none">1. Inform IEC, ER, Contractor and EPD;2. Repeat measurements to confirm findings;3. Increase monitoring frequency;4. Identify source and investigate the cause of exceedance;5. Carry out analysis of Contractor's working procedures;6. Discuss with the IEC, Contractor and ER on remedial measures required;7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;8. If exceedance stops, cease additional monitoring. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Confirm receipt of notification of failure in writing;2. Notify Contractor;3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;4. Supervise the implementation of remedial measures;5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none">1. Take immediate action to avoid further exceedance;2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification;3. Implement the agreed proposals;4. Submit further proposal if problem still not under control;5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated. <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>

**Event / Action Plan for Construction Air Quality**

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; 2. Repeat measurement to confirm finding; 3. Increase monitoring frequency to daily. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Notify Contractor. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; 2. Repeat measurement to confirm finding; 3. Increase monitoring frequency to daily; 4. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)



Event and Action Plan for Marine Water Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next working day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)



EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Limit level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)



Event and Action Plan for Odour Patrol

Event	ACTION	
	Person-in-charge of Odour Monitoring	Implementation Agent Identified by CEDD
Action Level		
Exceedance of Action Level	1. Identify source/reason of exceedance; 2. Repeat odour patrol to confirm finding.	1. Carry out investigation to identify the source/reason of exceedance; 2. Rectify any unacceptable practice 3. Implement more mitigation measures if necessary; 4. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.
Limit Level		
Exceedance of Limit Level	1. Identify source / reason of exceedance; 2. Repeat odour patrol to confirm findings; 3. Increase odour patrol frequency; 4. If exceedance stops, cease additional odour patrol.	1. Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks; 2. Rectify any unacceptable practice; 3. Formulate remedial actions; 4. Ensure remedial actions properly implemented; 5. If exceedance continues, consider what more/enhanced mitigation measures shall be implemented; 6. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.



Appendix 6.2

Summary for Notification of Exceedance



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N194	15-Dec-15	13:27	M1a-Habour Road Sports Centre	84	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Breaking works was conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement and mitigation measures including provision of noise screen and noise barrier was implemented. Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N192	11-Dec-15	10:05	M6 - HK Baptist Church Henrietta Secondary School	68	Leq(30-min)	when one documented complaint was received.	65	<p>Possible reason: Traffic nearby was observed during monitoring and was considered as the major noise contribution.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: No construction work was conducted under Contract HY/2009/19 around the concerned location during the time of measurement and it was observed that traffic noise was a major noise source during monitoring. It is concluded that the exceedance was not due to project but to traffic noise nearby.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N189	8-Dec-15	16:18	M1a-Habour Road Sports Centre	83	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Bored Pilling works and ground investigation works at portion 5 and backfilling at portion 2 were conducted under Contract HK/2009/02 around the concerned location during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N190	8-Dec-15	16:18	M1a-Habour Road Sports Centre	83	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Breaking works was conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement and mitigaion measures including provision of noise screen and noise barrier was implemented. Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N186	1-Dec-15	10:20	M1a-Habour Road Sports Centre	89	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Bored Pilling works and ground investigation works at portion 2 and reclamation works at WCR3 were conducted under Contract HK/2009/02 around the concerned location during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N187	1-Dec-15	10:20	M1a-Habour Road Sports Centre	89	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Welding works was conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N197	23-Dec-15	13:42	M1a-Habour Road Sports Centre	84	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Bored Pilling works and ground investigation works at portion 5 and backfilling at portion 2 were conducted under Contract HK/2009/02 around the concerned location during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N198	23-Dec-15	13:42	M1a-Habour Road Sports Centre	84	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Excavation works was conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N196	16-Dec-15	9:40	M6 - HK Baptist Church Henrietta Secondary School	69	Leq(30-min)	when one documented complaint was received.	65	<p>Possible reason: Traffic nearby was observed during monitoring and was considered as the major noise contribution.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: No construction work was conducted under Contract HY/2009/19 around the concerned location during the time of measurement and it was observed that traffic noise was a major noise source during monitoring. It is concluded that the exceedance was not due to project but to traffic noise nearby.</p>



Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action
X_10N193	15-Dec-15	13:27	M1a-Habour Road Sports Centre	84	Leq(30-min)	when one documented complaint was received.	75	<p>Possible reason: Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre) under non WDII-CWB Contractor.</p> <p>Action taken / to be taken: Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.</p> <p>Remarks / Other Obs: Bored Pilling works and ground investigation works at portion 5 and backfilling at portion 2 were conducted under Contract HK/2009/02 around the concerned location during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.</p>



Lam Geotechnics Limited

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and Testing Work (Stage2)
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Depth	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_10D567	21-Dec-15	Mid-flood	Ex-WPCWA SW	Middle	DO(mg/l)	3.66	3.84	3.73	<p>Possible reason:</p> <p>Action taken/ to be taken:</p> <p>Remarks/ Other Obs:</p>	<p>Possible in relation to the upstream organic discharge.</p> <p>Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p> <p>Despite seawall reinstatement was conducted at TPCWAE on the monitoring date, contractor mitigation measures including the use of silt curtain was generally in order while upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to the Project works.</p>



Lam Geotechnics Limited

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and Testing Work (Stage2)
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_10C705	7-Dec-15	Mid-ebb	P5	DO(mg/l)	5.59	3.36	2.73	Possible reason:	Natural variation or changes of water quality in the vicinity of water abstraction location for the water quality monitoring station.
				Turbidity	19.86	9.10	10.25	Action taken/ to be taken:	Immediate repeated in-situ measurement had conducted to confirm the exceedances. Checking with contractor works and review previous monitoring data.
				SS	19.50	15.00	22.13	Remarks/ Other Obs:	Despite installation of slotted panels was conducted under Contract HK/2012/08 near Zone A2 on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of no turbidity exceedances were recorded at the monitoring stations located at the immediate downstream location to the construction area and no turbidity exceedance recorded on the subsequent monitoring, it was considered that the turbidity exceedance was not project related. For suspended solid exceedance, in view of no suspended solid exceedance recorded at the monitoring stations located at the immediate downstream location to the construction area and no suspended solid exceedance recorded on the subsequent monitoring, it was considered that suspended solid exceedance was not project related.
X_10C706	26-Dec-15	Mid-ebb	C1	DO(mg/l)	5.59	3.36	2.73	Possible reason:	Natural variation or changes of water quality in the vicinity of water abstraction location for the water quality monitoring station.
				Turbidity	11.37	9.10	10.25	Action taken/ to be taken:	Immediate repeated in-situ measurement had conducted to confirm the exceedances. Checking with contractor works and review previous monitoring data.
				SS	4.50	15.00	22.13	Remarks/ Other Obs:	No marine construction activity was conducted under HK/2009/01 on the monitoring date. No marine construction activity was conducted under HK/2009/02 on the monitoring date, while the location of the construction area was located at downstream of C1 monitoring station. In view of no marine construction activity was conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.



Lam Geotechnics Limited

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and Testing Work (Stage2)
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action
X_W5257	30-Nov-15	Mid-flood	RW21-P789	DO(mg/l)	5.81	3.66	3.28	Possible reason: Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	11.13	8.04	9.49	Action taken/ to be taken: Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	8.00	13.00	14.43	Remarks/ Other Obs: No marine construction activity was conducted under Contract HK/2009/02 on the monitoring date. The installed silt screen was generally in order. In view of the no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_W5258	30-Nov-15	Mid-flood	WSD19	DO(mg/l)	5.92	3.66	3.28	Possible reason: Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.56	8.04	9.49	Action taken/ to be taken: Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	6.00	13.00	14.43	Remarks/ Other Obs: Despite trimming of grade 400 rock bedding was conducted under Contract HK/2012/08 near Zone A1 on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_W5259	2-Dec-15	Mid-flood	WSD19	DO(mg/l)	4.99	3.66	3.28	Possible reason: Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	9.90	8.04	9.49	Action taken/ to be taken: Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	9.50	13.00	14.43	Remarks/ Other Obs: Despite trimming of grade 400 rock bedding was conducted under Contract HK/2012/08 near Zone A1 on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_W5260	7-Dec-15	Mid-flood	WSD19	DO(mg/l)	6.01	3.66	3.28	Possible reason: Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.61	8.04	9.49	Action taken/ to be taken: Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	9.50	13.00	14.43	Remarks/ Other Obs: Despite installation of slotted panels was conducted under Contract HK/2012/08 near Zone A2 on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.



Lam Geotechnics Limited

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and Testing Work (Stage2)
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_W5261	16-Dec-15	Mid-ebb	WSD19	DO(mg/l)	6.15	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	10.23	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	5.50	13.00	14.43	Remarks/ Other Obs:	No marine activity was conducted under Contract HK/2012/08 on the monitoring date. In view of no marine activity conducted, it was considered that the exceedance was not project related.
X_W5262	16-Dec-15	Mid-flood	WSD19	DO(mg/l)	5.07	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.88	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	6.50	13.00	14.43	Remarks/ Other Obs:	No marine activity was conducted under Contract HK/2012/08 on the monitoring date. In view of no marine activity conducted, it was considered that the exceedance was not project related.
X_W5263	18-Dec-15	Mid-ebb	RW21-P789	DO(mg/l)	6.18	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.78	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	4.00	13.00	14.43	Remarks/ Other Obs:	No marine construction activity was conducted under Contract HK/2009/02 on the monitoring date. The installed silt screen was generally in order. In view of the no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_W5264	18-Dec-15	Mid-ebb	WSD19	DO(mg/l)	6.96	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	10.51	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	6.00	13.00	14.43	Remarks/ Other Obs:	No marine activity was conducted under Contract HK/2012/08 on the monitoring date. In view of no marine activity conducted, it was considered that the exceedance was not project related.



Lam Geotechnics Limited

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and Testing Work (Stage2)
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_W5265	18-Dec-15	Mid-flood	WSD19	DO(mg/l)	5.57	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.58	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	8.00	13.00	14.43	Remarks/ Other Obs:	No marine activity was conducted under Contract HK/2012/08 on the monitoring date. In view of no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_W5266	23-Dec-15	Mid-flood	WSD19	DO(mg/l)	6.39	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	8.24	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	6.00	13.00	14.43	Remarks/ Other Obs:	Despite trimming of grade 400 rock mound was conducted under Contract HK/2012/08 near Zone D on the monitoring date, contractor mitigation measures including the use of localized silt curtain was generally in place. In view of the above, it was considered that the exceedance was not project related.
X_W5266	26-Dec-15	Mid-ebb	WSD19	DO(mg/l)	6.44	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	14.32	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	8.00	13.00	14.43	Remarks/ Other Obs:	No marine activity was conducted under Contract HK/2012/08 on the monitoring date. In view of no marine activity conducted and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.



Appendix 9.1

Complaint Log



Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100321a	21/3/2010	ICC Case no. 1-224618029, Ms. Tsang	Location near Tin Hau	Complaint regarding the loud noise and dark smoke in the course of dredging works on 21 March 2010 (Sunday).	<ol style="list-style-type: none">1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works which carry out at area for North Point Reclamation.2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.3) The Contractor (CHEC-CRBC JV) strictly comply all the conditions in CNP and take all mitigation measures in order to minimize the potential impacts to surrounding sensitive receivers. A formal letter was issued out by CHEC-CRBC JV and to explain the status of the recent construction activities.4) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring.5) No further complaints were received from Mr. Tsang in the reporting month. The complaint is considered closed.	Closed
100321b	21/3/2010	Unknown	Near the eastern breakwater of the Causeway Bay Typhoon Shelter	A public complaint and enquiry regarding loud noises emanated from dredging activities on 21/3/2010 (Sunday) until 2220 hours and between 1920-1946 hours in the evening of 22 March 2010(Monday).	<ol style="list-style-type: none">1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works at area for North Point Reclamation during general holidays including Sunday between 0700-2300 hours and any day not being a general holiday between 1900-2300hours. It is complied with the condition of CNP.2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.3) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring.4) No further complaints were received in the reporting month. The complaint is considered closed.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100504	4/5/2010	Public complainant received by ICC (ICC case: 1-233384048)	Watson Road	Complaint on the noise nuisance due to the large scale of dredging machine (face to Island East Corridor) in particular the hours 1900 to 0800 and request to reduce the noise level.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0119-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) According to RSS 's record, no more daytime and night time dredging since the departure of the split hopper barge from the workplace on 29 April 2010 at 1900 hrs to 5 May 2010. 3) No further complaints were received in the reporting month. The complaint is considered closed.	Closed
100731	31/7/2010	Mr. Lee received by ICC (CC Case: 1-250702681)	Oil Street to Watson Road	Complaint on the noise nuisance due to the dredging works. Three construction plants were operated concurrently.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. 2) There was only 1 grab dredger operated by Contractor within NPR project site area for dredging works. 3) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 27 July and 3 August 2010 during daytime and evening time period. 4) It is considered as invalid from the EP and CNP point of view.	Closed
100812	12/8/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the dredging works at the marine works area adjacent to the Harbour Height during the period from 0700 to 2200.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 10 and 17 August 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
101108	8/11/2010	Mr. Nip received by ICC (CC Case)	Sai Wan Ho	Visual concern around the seaside silt screen outside the WSD freshwater intake pump at Sai Wan Ho (Monitoring station ref no.. WSD15)	<ol style="list-style-type: none"> 1) Contractor for HY/2009/11 has been regular checked of condition and removal of trapped rubbish before the dismantling of the floating silt screen to be replaced by wall mount silt screen. 2) Follow-up action had been immediately carried out to check and clear the floating refuse around the seaside silt screen after receipt of the complaint. 3) Removal of seaside silt screen outside the WSD freshwater intake (WSD15) by contractor HY/2009/11 was checked and confirmed dated 9 November 2010. Silt screen has been deployed into the existing steel frame at WSD15 for the protection of WSD salt water intake. 	Closed
101110	10/11/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the power mechanical equipment during the 0700 to 2200hrs	<ol style="list-style-type: none"> 1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0870-10 for their dredging works during evening time. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 4 and 10 November 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed. 	Closed
101203	3/12/2010, 01:45a.m.	The resident of Block 11, City Garden by ICC referral from Marine Department	North Point	Bad odour was generated from the dredging plant off North Point	<ol style="list-style-type: none"> 1) The first investigation was carried out by Marine Department patrol in the morning on 3 Dec 2010 at around 10:00 and revealed that a few working barges were anchoring in the vicinity without carrying out dredging work. 2) A further specific investigation inspection on contractor's backhoe barge in the vicinity of City Garden was jointly conducted with Engineer Representatives (AECOM/RSS), and ET on 8 Dec 2010 at 11:30. No bad odour was noted during the investigation. 3) Routine dredging operation of the backhoe barge was performed during the jointed investigation inspection and it was revealed that no bad odour was attributed by the dredged materials inspected. 	Closed
101206	6/12/2010	Ms Lui, the resident of 27/F, Block 10, City	City Garden, North Point	Two barges were generating noise at 22:00 on 6 December 2010 in which the noise from	<ol style="list-style-type: none"> 1) ET confirmed the following information with resident site staff on the complaint: <ul style="list-style-type: none"> • It was referred to the filling operation at North Point 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		Garden by ICC (ICC case: 1-266039336)		<p>filling operation was louder than the traffic noise & visual impact was generated due to the spot-light pointing directly to the complainant flat, suspected the filling operation was part of Wanchai Development Phase II;</p> <p>Complainant also raised the same complaint to District Councillor, Mr. Hui on 7 Dec 2010 regarding the night-time noise and suspected earlier start of work at 06:30. Complaint also requested for limiting the plant operating hours from 09:00-21:00.</p>	<p>Reclamation of Central Wan Chai Bypass site area instead of part of Wanchai Development Phase II;</p> <ul style="list-style-type: none">Two derrick barges were in operation at the time of complaint for placing 400 rockfill onto the excavation trench and for levelling the formation level to receive the pre-cast caisson seawall;Flood light on the control mast of derrick barge have no lighting shields for the prevention of glare of flood lights;No starting work on 7 Dec 2010 at 0630hours. <p>2) PME used in restricted hours were checked and confirmed compliant with valid CNP no. GW-RS0870-10. The noise level recorded on 6 Dec 2010 was complied with the noise criteria during restricted hour;</p> <p>3) It was found that the occasional noise nuisance might be caused by the hitting or scratching onto the rock surface during loading down the grab onto the Grade 400 rockfill;</p> <p>4) The absence of the lighting shields at flood light results in visual glare to the complainant at night-time.</p> <p>5) Contractor was advised to minimize the finishing time of placing Grade 400 rockfill at 2100hrs and switch off all unnecessary flood lights apart from the light for the safety and security purpose;</p> <p>6) No further complaint was received after implementation of proposed measures</p>	
110415	15/04/2011	The resident, Mr Law at Victoria Centre by ICC (ICC#1-281451236)	North Point	A dust generation and a concern of mosquitoes breeding complaint in which suspected the filling operation was part of North Point Reclamation.	<p>1) The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work.</p> <p>2) Water spraying on the haul road and potential dust generating material at least 4 times a day was conducted by contractor that complies with the requirement.</p> <p>3) It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant.</p> <p>4) It was recommended that increasing the frequency of water spraying shall be conducted to all potential dust generating materials and activities. Besides, Contractor should consider to cover the idle part of the stockpile</p> <p>5) The concern of mosquitoes breeding is out the scope of EM&A, the follow-up action is not reported in this monthly EM&A report.</p>	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
110419	19/04/2011	Ms Chiu at Victoria Centre at Victoria Centre by ICC (ICC# 1-272874759)	North Point	The episode of night noise on 19/4/11 and 20/4/11 at 2:50 am and the noise lasted for 30 minutes per night.	<ol style="list-style-type: none">1) According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period.2) There was no abnormal real-time noise monitoring data recorded in RTN1 - FEHD Hong Kong Transport Section Whitefield Depot which is next to the Victoria Centre.3) It is considered as invalid complaint under this Project.	Closed
110617	9/06/2011	Mr. Law from Victoria Centre Management Office	North Point	An odour nuisance suspected generating from the discharge point – Channel T at Watson Road in part of the site area was related to CWB under Contract no. HY/2009/11	<ol style="list-style-type: none">1) The complaint was received by ET on 13 Jun 2011. During the weekly site inspection on 7 and 17 June 2011, there was no any odour impact detected in the site area.2) According to the site record, there was muddy water discharged from the unknown source at upstream of Channel T during heavy rainstorm. No any site surface runoff to the Channel T and out of site boundary was observed in the inspection.3) In order to prevent muddy water washing out to the water body under heavy rainstorm, a silt curtain was installed at the outfall of the channel by Contractor. ET confirmed with the Resident Site Staff that a silt curtain was installed at the outfall of the channel to prevent muddy water washing out to the water body under heavy rainstorm. Besides, regular cleaning of refuse in the channel has been conducted by Contractor.4) A further site investigation on 28 June 2011 revealed that no odour nuisance was detected at the upstream of the Channel T and no source of odour nuisance was identified at site. As such, it was concluded that the source of odour nuisance was not related to the Project works.5) Although no source of odour nuisance was identified at site, the muddy water and dirt from the unknown source at upstream of Channel T may cause a potential smell during low tide and low water flow. Contractor was reminded to remove the silt curtain at the channel on non-rainy day so as to avoid the accumulation of the sediment and dirt in the water channel.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
110709	09/07/2011	Mr. Au from City Garden Management Office	North Point	A complaint letter to Contractor HY/2009/11 was raised by Cayley Property Management Limit on 9 July 2011 regarding a series of pump breakdown events at seawater intake of City Garden on 4, 6, 7 and 8 July 2011. A lot of rubbish such as plastic bags, nylon bags, nylon-wire mesh was observed sucking from the seawater intake at the seawater front of Block 7 of City Garden affecting the operation of seawater pump plant.	<ol style="list-style-type: none"> 1) Contractor conducted formation works for installation of caisson seawall at C27, C28, C29 and C30 on 4, 6, 7 and 8 July 2011 and no dredging work was conducted during this time period 2) Water mitigation measures of an 80m long silt curtain at the site boundary in front of City Garden Relocation of silt curtain and silt curtain at the outfall of the channel were provided and maintained to accommodate the site works. All vessels are equipped with rubbish collection facilities and disposed the rubbish regularly. Also, daily cleaning actions had been taken by contractor to minimize floating refuse within the site boundary. 3) Moreover, it has been reported several times that discharged from outfall pipeline outside the site boundary near the intake of the pump maybe considered as another source of rubbish generation. 4) Referring to the record provided by Cayley Property Management Limit, the trapped rubbish was unlikely generated from the construction works. It was considered that complaint is invalid and not related to project. 	Closed
110710	09/07/2011	Complainant by ICC (ICC no. 1-301520309	North Point	It was received at 00:56 on 10 July 2011. There was complained a derrick barge unloading rockfill material off the shore facing the Harbour Grant HK Hotel causing noise nuisance.	<ol style="list-style-type: none"> 1) ET confirmed with the Resident Site Staff that the complaint was referred to Contract HY/2009/15 for the loading and unloading of fill material at two barges operation in the sea at around 300m adjacent to Island Eastern Corridor (Oil Street Chainage) where is outside the Site of HY/2009/15 in the period of around 19:45 on 9 July to 1:00 on 10 July 2011. 2) The material loading and unloading operation processed in restricted hours was checked without a valid CNP. It was found that the operation was due to an unexpected water leakage of the hopper barge and considered an incident. 3) According to the incident report provided from RSS on 20 July 2011, around 7:30 pm the barge S22 was inclined slightly and slightly water leakage might occur. Due to marine safety concern, the hopper barge would open the hopper to release the contained materials in order to reduce the weight and stabilize the barge. In consider of slight water leakage, the operator decided to use the nearby Derrick Barge ST32 to help for unload the general fill materials first and the unloading operation was started at around 7:45pm, and end at around 1:00 am. Contractor was reminder to provide frequent check of vessel condition 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					so as to prevent recurrent by barge defect	
110723a	23/07/2011	Ms. Law at Victoria Centre by ICC no. 1-303887687	North Point	She concerned that Highways Department published a notice in their Management Office about construction works will be conducted from 0700 hours to 2300 hours during July to December 2011 including Saturday, Sunday and public holiday.	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed that the notice was prepared by Victoria Centre's Management office to their resident and the advice was only given on the extension construction works (for Contract HY/2009/15) to 7am-9pm from Monday to Saturday except Public Holidays and Sundays. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) No noise exceedance was recorded at construction noise monitoring station at Victoria Centre on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring. 5) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures. 	Closed
110723b	23/07/2011	Ms. Yau at Block 2, Victoria Centre by ICC no. 1-304013959	North Point	Reclamation work was conducted at Causeway Bay Typhoon Shelter at 7am on 23 July 2011. She complained that the works shall be started later to minimize the noise nuisance to the vicinity of the residents in early morning	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 8 August 2011 2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures. 	Closed
110727a	27/07/2011	Mr. Law from Victoria Centre Management Office by ICC no. 1-304616162	North Point	It was complained by Mr. Law from Victoria Centre Management Office on 27 July 2011 regarding construction noise generated by the construction operations of	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed to start the rock breaking activities for Contract HY/2009/15 at 8am as a mitigation measure to minimize the noise nuisance in the vicinity of the residents. 3) No noise exceedance was recorded at construction noise 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
				Central-Wanchai Bypass at noon rather than in morning at 7am.	<p>monitoring station at Victoria Centre on 25 July and 4 August 2011 during daytime while breaking and excavation works were undertaken during monitoring.</p> <p>4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. No further complaint from complainant was received after proposed the mitigation measure.</p>	
110727b	27/07/2011	Ms. Chiu by ICC no.1-304615409	North Point	Noise nuisance from the excavation works for the Highways Department adjacent to the Victoria Centre was conducted from 7am	<p>1) It was referred by AECOM to ET on 28 July 2011</p> <p>2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 25 July and 4 and 10 August 2011 during daytime while breaking and excavation works were undertaken during monitoring.</p> <p>3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am.</p>	Closed
	08/08/2011				<p>4) However, complainant did not satisfy with the response on the noise nuisance from the rock-breaking during morning in front of Victoria Centre and then further complaint via 1823 on 7 August 2011.</p> <p>5) Highways contacted the complainant on 15 August 2011 that the noisy rock breaking operation had been completed.</p> <p><i>Remarks: There will be counted as two complaints in this complaint log.</i></p>	
110810	10/08/2011	Mr. Yip by ICC no. 1 - 306740207	North Point	Muddy water was discharged from work site to the seafront near Oil Street during heavy rain. The environmental protection measures were not good enough and are needed to rectify.	<p>1) It was referred by AECOM to ET on 17 August 2011.</p> <p>2) Confirmed with RE, Muddy water was caused by a heap of earth being washed to the sea by heavy rain. The heap of earth was referred as a small stockpile placed close to the seafront in front of Oil Street within the site area under handover transition period from contract HY/2009/11 to contract HY/2009/19. The necessary mitigation measures to protect the small stockpile against rainfall were missing at the time of complaint.</p> <p>3) Due to the missing of mitigation measures to protect the small stockpile during handover transition period, loose material was washed into the harbour when heavy rain came. Muddy water was formed and dispersed in the sea that caused the water quality and visual concern to the public. The complaint was considered as valid.</p> <p>4) Contractors were advised to relocate the loose materials</p>	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					away from the coastline as far as practicable. Any loose material placed which needed to be placed near the coastline shall be properly compacted or covered as appropriate. To avoid any further environmental deficiency, Contractors shall ensure all necessary environmental mitigation measures will not be missing during site area handover.	
110826	26/08/2011	Grand Hyatt and a complainant by ICC	Wan Chai	Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area.	<ol style="list-style-type: none"> 1) Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01. 2) The Excavator mounted breaker at Convention Avenue and Drilling rig at HKCEC1 reclamation area were the dominant construction noise source during this period. 3) The drilling rig at HKCEC1 reclamation area and excavator mounted breaker at Convention Avenue were then temporary suspended after received the complaint. 4) Investigation revealed that the erected noise barrier (4m cantilevered movable noise barrier for the drilling rig and 1m movable noise barrier for the excavator mounted breaker) were not located close to the plants to provide adequate noise screening. 5) Contractor was advised to avoid concurrent operation of construction plants at site. Further enhancement of movable noise barriers at HKCEC1 and providing noise enclosure for the excavator mounted breaker at Convention Avenue are needed. 6) Further site investigation and checking on 31 August and 7 September 2011 revealed that the implemented noise mitigation measures were in proper and minimize the noise impact. 	Closed
110826A	26/08/2011	A complaint letter from Mr. Au of Cayley Property of City Garden	North Point	Harbor front adjacent to their cooling water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25 August 2011.	<ol style="list-style-type: none"> 1) It was referred by AECOM to ET on 29 August 2011. Confirmed with the Resident Site Staff that the <ul style="list-style-type: none"> • construction works were referred to the Contractors HY/2009/11 and HY/2009/19. • The pump is located on the site area of HY/2009/19 • A temporary garbage defender was installed on 23 July 2011 by HY/2009/11 and the shape of the defender was adjusted on 8 August 2011 in order to exclude the outfall. • An ad hoc inspection of the effectiveness of garbage defender was conducted with RSS (CWB project 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>team), contractor of HY/200911 and HY/2009/19 and IECon 29 August 2011. Inspection report of it was submitted to RSS on 19 September 2011.</p> <ul style="list-style-type: none">• Daily cleaning near the water intake was conducted twice a day by contractor HY/2009/19.• In response to City Garden request, the contractors have set up the temporary garbage defender in function and collect the floating refuses, but cannot eliminate all refuses, in particular the refuse coming from the seabed <p>2) According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying with their expectation.</p> <p>3) During on-site inspection, floating refuses observed occasionally outside the garbage defender. No conclusion could be made for the source of these floating refuses. On the other hand, some of the refuses were observed floating behind the garbage defender during investigation.</p> <p>4) All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site.</p> <p>5) It was noted that the cooling water intake was accessible to the public. As such, fish breeding and fishing activities were observed even though a notice has already hoisted. Also, tripping of rubbish by the passers-by could result in a lot of rubbish accumulated around the intake point.</p> <p>6) Referring to the record provided by CPML, there were a lot of nylon/ plastic bags and nylon wire mesh that matched those rubbishes generated from the public activities.</p> <p>7) Contractors have fulfilled the requirement of site cleanness and no exceedance was recorded during Water Quality Monitoring. It is consider the cause of this complaint is not related to project and environmental issue in this project as well. No more complaint received after ad-hoc inspection</p>	
111014	14/10/2011	The complainant, Ms. Tam complained via hotline 1823	Wan Chai	The polluted fumes and exhaust from the excavation by sub-contractor of CEDD on pedestrian way outside no.25 Harbour Road (in front of the Harbour Centre)	<p>1) RSS notified ET to carry out investigation on 17 October 2011.</p> <p>2) ET confirmed with the Resident Site Staff that the location of the excavator was within site area of Contract no. HK/2009/02 undertaking the water cooling main reprovision works along the Harbour Road. The plants including the excavator have been checked before using</p>	Closed



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					<p>at the site. However, the polluted fumes and exhausted from the excavator was caused due to insufficient maintenance of the plant after using at site.</p> <p>3) After receiving the complaint, the excavator was then removal off-site for checking and maintenance works on 17 October 2011.</p> <p>4) Contractor was reminded to enhance regular checking and maintenance to all plants at site.</p> <p>5) RSS has replied to the complainant on the arrangement of the measures taken on 17 October 2011. Complainant was satisfied with the response and follow-up action taken by the Contractor.</p>	
111104	04/11/2011	Mr. Liu from LCSD complained via Contractor Complaint Hotline	Wan Chai	Complain about a tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road, the status is not healthy and roof ball of two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue were half cut.	<p>1) ET confirmed with the Resident Site Staff that</p> <ul style="list-style-type: none">• A tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road is the Tree no. TA1122 under Contract no. HK/2009/02. Leaves of a branch of this tree were shrivelled.• Two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue are the tree nos. A160 and A161 under Contract no. HK/2009/01. Part of roof ball of these two trees was covered by the metal plate. <p>2) Independent Tree Specialists for these two inspected the trees. Contractor HK/2009/01 has taken the measure as recommend downgrading the soil level around the trunk base. Reinstating of the ground works will be conducted in mid-December 2011. For the tree no. TA1122 under Contract no. HK/2009/02, the brown leaves were removed and fenced the tree with orange net is provided to prevent damage of tree trunk by construction works. The distance between the tree and the edge of the trench is kept approximate 2m. Two Contractors were reminded to carry out regular watering to the trees within their site area.</p>	Waiting RSS respond
111106	06/11/2011	Police officer	Wan Chai	Construction noise generated from the site at about 6:30 a.m on 6 November 2011 and require to stop the machine operation	<p>1) According to the information reported by Contractor, one BC cutter and hoist were operated for Diaphragm Wall construction of Shatin-Central Link to inspect bentonite pipes and ensure no damages and all the joints are tightened in good position. Then, the subcontractor for Diaphragm wall, SAMBO Korean foreman stopped the engine of the BC cutter immediately. The police officer recorded the details and HKID number of the foreman and then left. Due to the different language communication between the police officer and the Korean foreman, no</p>	Keep in view for three months from the date of complaint received



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					<p>CNP was checked by the police officer.</p> <p>2) ET confirmed with the Resident Site Staff that same issue was also raised out by RSS at about 7:00a.m on the same day. Besides, it was confirmed that there is no valid Construction Noise Permit for the conducted construction works in the period between 2300 and 0700.</p> <p>3) Due to insufficient communication between Contractor HK/2009/01 and their Korean Sub-contractor, Korean Sub-contractor had not notified to Contractor before carrying out the inspection of the BC cutter, hoists and bentonite pipes at about 6:00a.m to ensure no damages and all the pipe joints should be tightened and in good position.</p> <p>4) Contractor was advised to enhance the communication between Contractor and sub-contractor and provide sufficient environmental training to all foreman and operators on restricted hour operation. Furthermore, Construction Noise Permit should be checked and in place for the construction works during restricted hour</p> <p>5) This complaint was considered in relation to the conducted construction works during restricted hours without valid Construction Noise Permit. No more construction works were conducted during night time period. The construction works will be conducted in accordance with the time period stated in valid CNP. This complaint will be kept in view of any follow-up action from the relevant government activities.</p>	
120405	05/04/2012	N/A	North Point	A complaint regarding excessive noise from construction sites of CBTS was observed daily before 7:30am except on public holidays, and the noise source was mainly from piling works. The complainant requested that construction works should start after 8:30am to avoid nuisance to nearby residents and a speedy follow-up and reply.	<p>1) RSS notified ET on 5 April 2012.</p> <p>2) ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period.</p> <p>3) After reviewing the results of noise monitoring (M2b and M3a), no exceedance was recorded during daytime period and the noise level was below 75dB(A). Site inspection for HY/2009/15 was conducted on 10 April 2012. The condition of noise mitigation measures around CBTS was found satisfactory. RSS confirmed that no pilings were performed during the concerned period. The major works included drilling, diaphragm wall construction and excavations.</p> <p>4) HyD made a reply to the complainant on 16 April 2012 via 1823. HyD replied that the current works at CBTS were drilling, diaphragm wall construction and deep excavations. In order to minimize the noise generated</p>	Closed



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					from the above works, the Contractor had erected temporary noise barriers and provided noise blankets on plants. RSS would continue to work with the Contractor on the effectiveness of the environmental mitigation measures implemented on site. No further complaint was received after the response.	
130308	06/03/2013	ICC Case#1-407181502	Tin Hau	A complaint regarding the dropping of fine rock material into surrounding waterbody was observed during rock breaking operation with two excavators in active operation at the Eastern Breakwater of Causeway Bay Typhoon Shelter near the North Point lighthouse.	<p>1) RSS notified ET on 8 March 2013</p> <p>2) ET confirmed with RSS that excavation works, installation of buoy, flashing light and silt curtain and dredging works were undertaken at Eastern Breakwater during the concerned period on 6 March 2013. One backhoe equipped with breaker and one derrick barge were confirmed in operation while another backhoe was at idle during the concerned period on 6 March 2013.</p> <p>3) Reviewing the photo record provided by RSS, the condition of the silt curtain deployed around the Eastern Breakwater on 6 March 2013 was found to be in good condition. It is considered that the silt curtain was properly in place during the concerned period and the concerned act of dropping of fine rock material was confined within the silt curtain boundary without adverse impact to the nearby water quality.</p> <p>Further follow up was conducted on 12 March 2013 during weekly environmental audit inspection, the silt curtain deployed around the concerned area was found to be maintained in good condition and the water quality at the concerned work area was generally satisfactory. No violation of the Environmental Permit condition was found.</p> <p>The contractor was advised and committed to implement preventive measures to minimize the potential impact of work including conducting regular diver check to ensure the integrity and the extend of silt curtain deployment and to provide adequate back up stock of silt curtain for emergency use.</p>	Closed
140612	12/06/2014	EPD ref: EP/860/F2/24 Annex IV	Wan Chai	The complaint is regarding to the water quality of the waterfront outside the Hong Kong Academy for Performing Arts Theatre Block, where a large piece of muddy water was found.	<p>1) WSII RSS team notified ET on 12 June 2014; Notification letter from EPD (ref: EP/860/F2/24 Annex IV) was received by ET on 13 June 2014.</p> <p>2) ET confirmed with RSS that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. With respect to the complaint case, muddy dispersion was observed at HKCEC2W works area on 12 June 2014, and</p>	Interim Report was submitted to EPD on 20 June 2014.



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					<p>the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested.</p> <p>3) It is considered that Contractor's mitigation measures would require further review on the effectiveness to avoid seepage of muddy dispersion such as regular diver inspection check and daily visual checking of silt curtains.</p> <p>Additional silt curtain at marine access zone was installed by Contractor on 12 June 2014 and the double layer silt curtain were generally in order. Follow-up inspection was further conducted on 16 June 2014.</p> <p>The Contractor's investigation report on the complaint case was submitted to EPA via email on 18 June 2014.</p>	
140723	21/07/2014	ICC Case Ref: 2-341537112	Works area opposite to Ngan Tao Building	The complaint is regarding to construction noise impact to the complainant who could not sleep due to work and machine at the project site opposite to the Ngan Tao Building.	<p>1) Construction noise impact referred by RSS was received by ET on 25 July 2014</p> <p>2) ET confirmed with RSS that horizontal cutting and removal of D-wall at Eastern, Southern and Northern side of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter before 23:00hrs on 20 July 2014 that total 3 numbers of derrick lighter and 3 numbers of saw cut machine were in operation, and removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter around 00:25hrs to 00:56hrs on 21 July 2014 that total 1 number of derrick lighter was in operation.</p> <p>3) According to the relevant site records under Contract HY/2009/15, before 23:00hrs on 20 July 2014, horizontal cutting and removal of Diaphragm Wall at Eastern, Southern and Northern side of TS2 was conducted under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 3 nos. of derrick lighter and 3 nos. of saw cut machine were in operation at the above period. From around 00:25hrs to 00:56hrs on 21 July 2014, removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter. Total 1 no. of derrick lighter was found operating at the above period</p> <p>4) It was considered the condition of CNP GW-RS0592-14 was not fulfilled by the Contractor of HY/2009/15. "From 00:25hrs to 00:57hrs on 21 July 2014, the PME(s) (1 no. of Derrick Lighter) on-site could not follow with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no. GW-RS0592-14."</p>	<p>Final report (Issue1) issued on 31 July 2014.</p> <p>Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.</p>



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					<p>Notwithstanding the above, according to the site recorded provided by the RSS, the derrick lighter was found malfunction at around 23:00hrs on 20 July 2014 while the diaphragm wall cutting procedure was incomplete. Under safety and navigation consideration, the completion of diaphragm wall removal was necessary and of imminent need.</p> <p>5) The Contractor of HY/2009/15 was advised to review the construction sequence and emergency response procedure for construction activities during restricted hours and night time period to allow for sufficient buffer time for work completion such that the Construction Noise Permit would be followed. Furthermore, the Contractor of HY/2009/15 was suggested to conduct throughout checking of PME used on site prior to work commencement to minimize the potential malfunctioning of PME during the course of work which affect the duration of works.</p>	
141016	14/10/2014	EPD Ref.: EP860/E2/24 Annex IV ICC complaint received by ET on 10 October 2014	Work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	Construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	<p>A public complaint regarding construction noise impact referred by EPD was received by ET on 16 October 2014 (EPD Ref.: EP860/E2/24 Annex IV dated 16 October 2014). The complainant reported that construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.</p> <p>ET confirmed with the Resident Site Staff that From 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p>	<p>Interim investigation report submitted to EPD on 23 October 2014.</p> <p>Updated interim investigation with supplementary information submitted to EPD on 17 November 2014</p>



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					<p>From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway.</p> <p>Total one scissor platform and two hand held drills (battery) were in operation.</p> <p>From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road.Total one crane lorry was in operation.</p> <p>According to the relevant site records under Contract HK/2009/02, from 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation.</p> <p>From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation.</p> <p>In view of the above findings, no direct information associated with the noise concern was considered available.</p>	



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141110	07/11/2014	EPD Ref.: H05/RS/000278 15-14 EPD complaint received by ET on 10 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.	<p>A public complaint regarding odour concern referred by EPD was received by ET on 07 November 2014 (EPD Ref.: H05/RS/00027815-14 dated 10 November 2014).</p> <p>The complainant reported that Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.</p> <p>ET confirmed with the Resident Site Staff that</p> <p>ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool).</p> <p>Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated.</p> <p>Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier.</p> <p>Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.</p> <p>Dredging works was conducted on 7 November 2014 during daytime at WCR3 (East of old Wan Chai Ferry Pier)</p> <p>Total 1 no .of dredger, 1 no. of hopper and 1 no. of tug boat were operated.</p> <p>According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.</p> <p>Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.</p>	<p>Interim investigation report submitted to EPD on 17 November 2014.</p> <p>EPD advised no comment on the interim report and case closed on 1 Dec 2014.</p>



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					Based on the relevant information provided by RSS, despite no information associated with the malodour concern was identified after investigation, the Contractor was reminded to conduct regular checking on the condition of PME used on site to ensure only well maintained PME are used on site The interim report would be submitted to EPD on 17 November 2014.	
141113	12/11/2014	EPD Ref.: H05/RS/000282 53-14 EPD complaint received by ET on 13 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians.	<p>A public complaint regarding odour concern referred by EPD was received by ET on 13 November 2014 (EPD Ref.: H05/RS/00028253-14 dated 13 November 2014). The complainant reported that Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians. (Contract HK/2009/02)</p> <p>ET confirmed with the Resident Site Staff that demolition works was conducted under Contract HK/2009/02 on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated.</p> <p>According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated.</p> <p>In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair.</p> <p>Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.</p>	<p>Interim investigation report submitted to EPD on 19 November 2014.</p> <p>EPD advised no comment on the interim report and case closed on 8 Dec 2014.</p>



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141121	Not Specified	EPD Ref: H08/RS/28263-14 EPD complaint information and findings was received by ET via email on 21 Nov 2014	Causeway Bay Typhoon Shelter	Resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.	EPD received a construction noise complaint from dredging works at Causeway Bay Typhoon Shelter and a resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavor to minimize the noise as so not to disturb the nearby residents.	Complaint case handled by EPD and relevant investigation findings was sent to ET on 21 November 2014
150127	21 Jan 2015	EPD complaint (EPD Ref.: H05/RS/00001725-15) received by ET on 27 January 2015 and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015	A portion of Hung Hing Road immediately to the east of Marsh Road near SPCA	Construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public.	A public complaint regarding air quality impact referred by EPD was received by ET on 27 January 2015 (EPD Case Ref.: H05/RS/00001725-15 dated 27 January 2015) and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015. The complainant reported that construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public. ET confirmed with the Resident Site Staff that the major construction activities around the concerned location conducted on 21 January 2015 include breaking of seawall blocks and D-wall at TPCWAW; concreting, grouting and drilling works at TPCWAW;reclamation/ backfilling works at TPCWAW Mitigation measures implemented by the Contractor for the above construction works include spraying haul road with water; covering bagged cement with tarpaulin; providing three sided and top covering for grouting stations; providing water spraying to dusty activities such as breaking works According to the relevant site records, breaking of seawall blocks and D-wall, concreting, grouting and drilling works and reclamation/ backfilling works were	Interim report submitted to EPD on 9 February 2015



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					<p>conducted at TPCWAW. Dust mitigation measures including spraying haul road with water, covering bagged cement with tarpaulin, providing three sided and top covering for grouting stations and water spraying to dusty activities such as breaking works were implemented by the Contractor of HY/2009/15 near the concerned location on 21 January 2015.</p> <p>Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place.</p> <p>In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a, no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants.</p> <p>As such, the site condition under Contract HY/2009/15 at the concerned location was considered to be generally satisfactory and no non-conformity related to cumulative air quality impact was observed. Nevertheless, in view of the public concern, the contractor was reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public.</p>	
150622	18 June 2015	EPD Ref.:H05/RS/ 00015054-15 dated 8 June	A mooring location near shore and at location outside Wan Chai Sports	Dark smoke and malodour emission was observed from a hopper barge moored near shore and	A public complaint regarding dark smoke and malodour concern referred by EPD was received by ET on 22 June 2015 (EPD Ref.: H05/RS/00015054-15 dated 22 June 2015). The complainant reported that dark smoke and malodour emission was observed from a hopper barge	Interim report submitted to EPD on 29 June 2015



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		2015	Ground	other construction plants under operation from the reclamation construction site	<p>moored near shore and other construction plants under operation from the reclamation construction site with Contract no. HK/2009/02 at location outside Wan Chai Sports Ground caused air pollution. The complainant alleged that the said situation had been observed for a prolonged period.</p> <p>ET confirmed with the Resident Site Staff that reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 from 15 June 2015 to 19 June 2015. Total 3 nos. of mobile crane were in operation. On 17 June 2015, one no. of concrete pump truck and two nos. of concrete mixer were in operation. Excavation and Lateral Support was conducted at Portions 3 & 4 from 15 June 2015 to 19 June 2015. Total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. In addition, on 15 June 2015, 17 June 2015 and 19 June 2015, 1 no. of derrick barge was moored near Portions 3 & 4 for transportation of the excavated material away from site.</p> <p>According to the relevant site records under Contract HK/2009/02, from 15 June 2015 to 19 June 2015, reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 and total 3 nos. of mobile crane, one no. of concrete pump truck (on 17 June 2015 only) and two nos. of concrete mixer (on 17 June 2015 only) were in operation; excavation and lateral support was conducted at Portions 3 & 4 and total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. Based on relevant site record, no hopper barge was moored under Contract HK/2009/02 around the concerned location while 1 no. of derrick barge was moored under Contract HK/2009/02 near Portions 3 & 4 for transportation of the excavated material from Portions 3 & 4 away from site on 15 June 2015, 17 June 2015 and 19 June 2015 respectively.</p> <p>Follow-up inspection was conducted during weekly</p>	



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					environmental inspection on 25 June 2015, no dark smoke and malodour emission was observed from the PMEs operating on-site. A derrick barge was observed moored near Portions 3 & 4 and excavated material was transferred to the derrick barge by the excavators on land without barge operation and no particular dark smoke and malodour emission was observed. Nevertheless, the Contractor was reminded to conduct regular checking on the condition of the derrick barge and other PMEs deployed on site to ensure only well maintained PMEs are used to avoid potential dark smoke and maldour emission affecting nearby public.	
150723	20 July 2015	EPD Ref.:H05/RS/00018040-15 dated 23 July 2015	Ex-Wanchai Ferry Pier near 720 & 722 Bus stop	Malodour from marine sediment	<p>A public complaint regarding malodour referred by EPD was received by ET on 23 July 2015 (EPD Ref.: H05/RS/00018040-15 dated 23 July 2015).</p> <p>The complainant reported that malodour from marine sediment was scented at ex-Wanchai ferry pier near route 720 & 722 bus stop. (Contract HK/2009/02).</p> <p>ET confirmed with the Resident Site Staff that Rockfill placing works was conducted by one derrick barge at the concerned location (WCR3) under Contract HK/2009/02 on 20 July 2015. No marine sediment was stored or placed on site at the concerned location under Contract HK/2009/02 on 20 July 2015.</p> <p>According to the relevant site records under Contract HK/2009/02, rockfill placing works was conducted by one derrick barge at WCR3 area on 20 July 2015 and no marine sediment was stored or placed on site at the concerned location on the concerned date.</p> <p>Follow-up inspection was conducted during weekly environmental inspection on 29 July 2015. No marine sediment was observed stored or placed at the concerned location while it was noted that a culvert outfall with potential odour concern is located adjacent to the concerned location.</p>	Interim report submitted to EPD on 30 July 2015.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Nevertheless, the Contractor was reminded to review the handling procedures in case of any future marine sediment handling at the concerned location and to consider the implementation of mitigation measures as appropriate to minimize potential malodour impact to nearby public.	
150904	01 Sept 2015	EPD Ref.: H05/RS/0002 2241-15 dated 04 September 2015 received by ET on 4 September 2015	East of New WanChai Ferry Pier	Dropping of excavated material from land to sea during loading of material	<p>A public complaint regarding dropping of excavated material from land to sea referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H05/RS/00022241-15 dated 04 September 2015). The complainant reported that dropping of excavated materials from land to sea during loading of materials by excavator at the construction site to work boat. (Contract HK/2009/02)</p> <p>ET confirmed with the Resident Site Staff that transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was undertaken by Contract HK/2009/02 on 01 September 2015.</p> <p>Mitigation measure including providing tarpaulin sheet to cover the gap between seawall and the hopper barge to prevent dropping of material to the sea was implemented by the Contractor.</p> <p>According to the relevant site records under Contract HK/2009/02, transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was carried out on 01 September 2015 and mitigation measures including provision of tarpaulin sheet between seawall and the hopper barge was implemented by the Contractor of HK/2009/02 on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 10 September 2015. Transferring of C&D materials from land to barge by excavator was observed at the concerned location and mitigation measures including provision of tarpaulin sheet between seawall and hopper</p>	Interim report submitted to EPD on 14 September 2015. EPD advised no comment on 5 October 2015 on the interim report submitted and case closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>barge and the material transfer works was generally in order. Nevertheless, the Contractor of HK/2009/02 was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.</p> <p>The Contractor was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.</p>	
150904	02 Sept 2015	EPD Ref.: H04/RS/0002 2385-15 dated 04 September 2015 received by ET on 04 September 2015	Location outside Fleet Arcade	Construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site.	<p>A public complaint regarding construction noise and dust and exhaust emission referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H04/RS/00022385-15 dated 04 September 2015). The complainant reported that construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site. (Contract HK/2012/08) ET confirmed with the Resident Site Staff that from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation.</p> <p>From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.</p>	Interim report submitted to EPD on 14 September 2015.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>From 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.</p> <p>From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location.</p> <p>Total one derrick barge was in operation.</p> <p>From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.</p> <p>One derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location.</p> <p>Based on the relevant site records, from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location.</p> <p>Total one generator and one circular saw were in operation and the relevant Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.</p> <p>From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location and from 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.</p> <p>From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation and the Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.</p>	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. In view of the above, the construction activities conducted under Contract HK/2012/08 during the concerned period was in compliance with the statutory requirement.</p> <p>In addition, one derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location. Follow-up inspection was conducted during weekly environmental inspection on 08 September 2015 and no dark smoke emission was observed from the derrick barge moored outside the concerned location. Nevertheless, the Contractor of HK/2012/08 was reminded to conduct regular checking on the condition of the all derrick barges deployed on site to ensure only well maintained equipment are used to avoid potential dark smoke emission affecting nearby public and the Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.</p> <p>The Contractor was reminded to conduct regular checking on the condition of derrick barges deployed on site to ensure only well maintained equipments are used on site to avoid potential dark smoke emission affecting nearby public.</p> <p>The Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.</p>	
150917	17 Sep 2015	A public complaint regarding water quality referred by EPD was	Central and Wan Chai Reclamation coastline (between LUNG WUI ROAD to LUNG WO ROAD,	Silt from Central and Wan Chai Reclamation was spotted along the coastline (between LUNG WUI ROAD to LUNG WO ROAD, Central & Wan	Based on the site records confirmed by RSS, removal of seawall blocks by derrick barge was undertaken by Contract HK/2012/08 at Central Reclamation Phase III works area while mitigation measures including provision of silt curtain implemented by the Contractor of HK/2012/08 during the	Interim investigation report submitted to EPD on 25



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		received by ET on 17 September 2015	Central & Wan Chai, Hong Kong)	Chai, Hong Kong)	<p>seawall block removal works. According to relevant record, muddy dispersion at HKCEC2W (area opposite to Lung King Street) was observed by the Environmental Team on 14 September 2015 afternoon. The muddy patch was observed dispersing outside the outer layer silt curtain deployed by the Contractor of HK/2012/08 towards the Central Reclamation Phase III area while the outer layer silt curtain was observed partially opened.</p> <p>In view of the above observations, the Contractor was advised to rectify any environmental deficiencies such that adequate protection such as silt curtain shall be provided for exposed soil slope to mitigate for potential runoff related water quality impact to the surrounding waters; outer layer silt curtain deployed shall be entirely closed during works to safeguard the surrounding water quality. Any opening for marine vessel shall be closed promptly after passage and localized silt curtain deployed on site shall be properly maintained to avoid any gap or opening to effectively safeguard the nearby waters.</p>	September 2015
151015	11 Oct 2015	A public complaint regarding direct discharge of muddy effluent referred by RSS was received by ET on 14 October 2015	Seafront opposite to Watson Road adjacent to Eastern Breakwater	Pink fluid was observed discharged into marine waters at seafront opposite to Watson Road adjacent to the Eastern Breakwater on 11 October 2015.	<p>Based on the site records confirmed by RSS, no construction activity near the seaside between Eastern Breakwater and the Dumping Jetty was undertaken by Contract HY/2009/19 while at site area away from the seawall, construction of EVB substructure, EVB and APS structure was undertaken on 11 October 2015. In addition, no works involving the use of paint was carried out at the concerned site area (Site Portion between Eastern Breakwater and the Dumping Jetty) and along the alignment of the Culvert T1 under Contract HY/2009/19 and no temporary storage of paint was located at the concerned site area and along the alignment of the Culvert T1 under HY/2009/19 on 11 October 2015.</p> <p>Follow-up inspection was conducted during weekly environmental inspection on 14 October 2015. No construction works involving the use of paint was observed undertaken at the concerned location while a few number of small containers of paint was observed placed around the concerned location and the paint containers were sealed and no sign of leakage was observed. The few containers were further checked and was found not matching the pink fluid observed on the complaint date. On the other hand, a culvert discharge outfall was found located within the concerned area where the pink fluid was observed.</p> <p>Based on the above, no direct information indicating the pink</p>	HyD will consolidate all input from relevant parties to form a reply to ICC.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					fluid was originated from the worksarea under HY/2009/19 was considered available. Nevertheless, the Contractor was reminded that paints stored on site shall be properly labelled and stored in sealed container at weather proof location to avoid potential spillage.	
151028	26 Oct 2015	A public complaint regarding construction noise impact referred by EPD was received by ET on 28 October 2015 (EPD Ref:H05/RS/00 027330-15 Dated 28 October 2015)	Construction Site next to ex-Wan Chai Ferry Pier	Operation of grab dredger at construction site near the ex-Wan Chai Ferry Pier from around 0100 to 0400 hours on 26 October 2015 caused noise nuisance.	<p>According to the relevant site records under Contract HK/2009/02, from 01:00hrs to 04:00hrs on 26 October 2015, rock filling was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02 and the relevant Construction Noise Permit</p> <p>GW-RS1121-15 for the concerned construction works was in place.</p> <p>The construction activity conducted under Contract HK/2009/02 during the concerned period was in compliance with the statutory requirement. Nevertheless, the Contractor was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance in view of the nearby public concern.</p>	The interim report would be submitted to EPD on 05 November 2015
151116	13 November 2015	A public complaint regarding water quality referred by EPD was received by ET on 16 November 2015 (EPD Ref: H05/RS/000291 26-15)	Construction Site at HKCEC and seafront outside Lung Wo Road	Muddy water was discharged from the construction site at HKCEC and dispersed to seafront outside Lung Wo Road on 13 November 2015 afternoon. The complainant also alleged that the deployment of the silt curtain did not follow the design requirement under the environmental permit that the curtain should be hanged to seabed level	<p>Based on the site records, rock mound trimming works was conducted under Contract HK/2012/08 at HKECE2 area on 13 November 2015 and mitigation measures including provision of localized silt curtain around the works area was implemented by the Contractor. Follow-up inspection was conducted during weekly environmental inspection on 17 November 2015, both outer layer silt curtain and localized layer of silt curtain around the active works area were observed deployed while the localized silt curtain deployed around the marine works area was observed partially opened for marine access. Despite no muddy dispersion was generated around the localized silt curtain enclosed area, the Contractor was advised to promptly improve the condition of the silt curtain to ensure the effectiveness of the mitigation measure deployed and to ensure the silt curtain is closed after marine vessel movement.</p> <p>Based on further review on the current construction stage at HKECE2, the dredging works and trench filling works were completed and filling works were conducted behind seawall or temporarily seawall in form of rockbund, the outer layer of silt curtain currently serves as the additional mitigation measure to</p>	The interim investigation report would be submitted to EPD on 1 December 2015.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<p>the required silt curtain deployment for safeguarding the water quality in the area. To clarify for the current silt curtain arrangement, the Contractor was advised to submit an updated silt curtain deployment plan with respect to the latest silt curtain arrangement for the current construction stage. In addition, contaminated discharge at Culvert L originating from upstream locations was intermittently observed based on previous site records. Nevertheless, in view of the public concern, the Contractor was reminded to conduct regular checking on the condition and maintenance for the silt curtain deployed on site to ensure the effectiveness of the mitigation measure.</p> <p>A joint meeting for the complaint was held amongst the EPD, WDII RSS team, the ET and the Contractor of HK/2012/08 on 24 November 2015 and a joint silt curtain diver inspection check amongst EPD, ET, IEC, WDII RSS and the Contractor was conducted on 27 November 2015 to confirm the silt curtain condition and the silt curtain deployed at the HKCEC2 water channel was found generally in order.</p>	
151117	Not specified	EPD complaint received by ET on 17 Novmeber 2015	Causeway Bay Typhoon Shelter	Improper handling or bentonite and marine sediment generated from construction works and contaminated discharge from water treatment plant into Victoria Harbour	<p>A public complaint regarding illegal disposal of construction waste referred by EPD was received by ET on 17 November 2015. The complainant reported that over 10,000 m3 of bentonite after usage for construction of diaphragm wall was disposed of at Victoria Harbour.</p> <p>The Contractor recently deployed mobile crane to transfer the bentonite from mud pit on to works barge. The bentonite was then mixed with soil and transported to the Public Fill. During the course, seepage of slurry through grab generated drop off to marine waters and the soil mixing generated dust impact to nearby yacht club, typhoon shelter and affect nearby public and boats.</p> <p>Disposal of dredged marine sediment was not carried out in accordance with the Management of Dredged/Excavated Sediment. Instead the marine sediment was covered by sand and soil and transported to the Public Fill.</p> <p>White or greyish effluent was discharged directly into Victoria Harbour marine waters from wastewater treatment plant on construction site.</p>	<p>Interim investigation report submitted to EPD on 24 November 2015.</p> <p>2nd interim investigation report submitted to EPD on 17 December 2015.</p> <p>3rd interim investigation report submitted to EPD on 31 December 2015.</p> <p>Final</p>



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					In response to the complaint concern, additional water quality monitoring and additional site inspections have been conducted by the ET and the investigation findings were included in the interim investigation reports separately submitted to the EPD. In addition, the ET and IEC have conducted checking on the waste disposal records and site construction records with the CWB RSS team to confirm the key construction activities during the concerned period and the quantities of inert C&D material disposed. Upon further review on relevant records and follow up inspections on the implementation of site measures, the final investigation would be issued.	investigation report to be submitted in January 2016.



Appendix 10.1

Construction Programme of Individual Contracts

Activity ID	Activity Name	OD	Start	Finish	2015					2016
						Qtr 4			Qtr 1	
					Sep	Oct	Nov	Dec	Jan	
HK/2009/01 - Revised Works Progress Rev. 6H (Data Date: 15 Oct 15)										
Section 3 of the Works - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8										
CWB Tunnelling Works (Stage 1 : CH2947 - CH3045)										
Stage 1 - Tunnel Structure Works (Bay 1 to Bay 7 : Ch2947 - Ch 3045)										
Tunnel Structure at Stage 1A & 1B (CH2947 - CH3045)										
S3A-TS-2080	Backfilling to formation level for Stage 1B (CH 80 to CH 120)	200	19-Jan-15 A	15-Nov-15	Backfilling to formation level for Stage 1B (CH 80 to CH 120)					
CWB Tunnelling Works (Stage 2 : Ch3045 - Ch3129)										
Stage 2 - Tunnel Structure Works (Bay 7 to Bay 10 : CH3045 - CH3129)										
S3B-TS-1160C2	Construction of Bay 9 Slip Road 2 Wall	10	26-Sep-15 A	21-Oct-15	Construction of Bay 9 Slip Road 2 Wall					
S3B-TS-1160C3	Construction of Bay 9 Slip Road 2 Road Barrier	14	07-Oct-15 A	19-Oct-15	Construction of Bay 9 Slip Road 2 Road Barrier					
S3B-TS-1160E1	Construction of Retaining Wall 2 Road Barrier including Demolish ofTemporary Dwall to Cut-off Level	14	14-Oct-15 A	27-Oct-15	Construction of Retaining Wall 2 Road Barrier including Demolish ofTemporary Dwall to Cut-off Level					
S3B-TS-1165A1	Construction of Bay 9 Slip Road 3 Top Slab & Portal Wall	25	05-Oct-15 A	18-Oct-15	Construction of Bay 9 Slip Road 3 Top Slab & Portal Wall					
S3B-TS-1165B	Construction of Bay 7, 8 & 9 Slip Road 3 Road Barrier	10	20-Aug-15 A	08-Nov-15	Construction of Bay 7, 8 & 9 Slip Road 3 Road Barrier					
S3B-TS-1165E	Construction of Bay 4, 5 & 6 Slip Road 3 Road Barrier	14	24-Sep-15 A	28-Oct-15	Construction of Bay 4, 5 & 6 Slip Road 3 Road Barrier					
S3B-TS-1180A	Bay 9b & 10 CWB Road Barrier	20	03-Oct-15 A	22-Oct-15	Bay 9b & 10 CWB Road Barrier					
S3B-TS-9000A	Backfilling to Formation Level (CWB) - 12,000cu.m	20	03-Aug-15 A	22-Dec-15	Backfilling to Formation Level					
CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245)										
Stage 3 - Excavation Works (Ch3129 - Ch3245)										
Excavation Works at Stage 3										
S3C-EW-1010E	Excavation to -16mPD (approx 55,000m3)	100	13-Mar-15 A	31-Oct-15	Excavation to -16mPD (approx 55,000m3)					
Stage 3 - Tunnel Structure Works (Bay 11 to Bay 20 : Ch3129 - Ch3245)										
Tunnel Structure at Stage 3A & 3B (CH3129 - CH3245)										
S3C-TS-2000E	Bay 11 to Bay 13 Slip Road 3 Wall	10	22-Oct-15	31-Oct-15	Bay 11 to Bay 13 Slip Road 3 Wall					
S3C-TS-2000E	Access reseeded for HyD's CC prior to completion of Slip Road 2	80	01-Nov-15	17-Dec-15	Access reseeded for HyD's CC prior to					

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

[illegible]

Remaining Work
 Actual Work
 Summary Bar
 Critical Remaining Work

Milestone

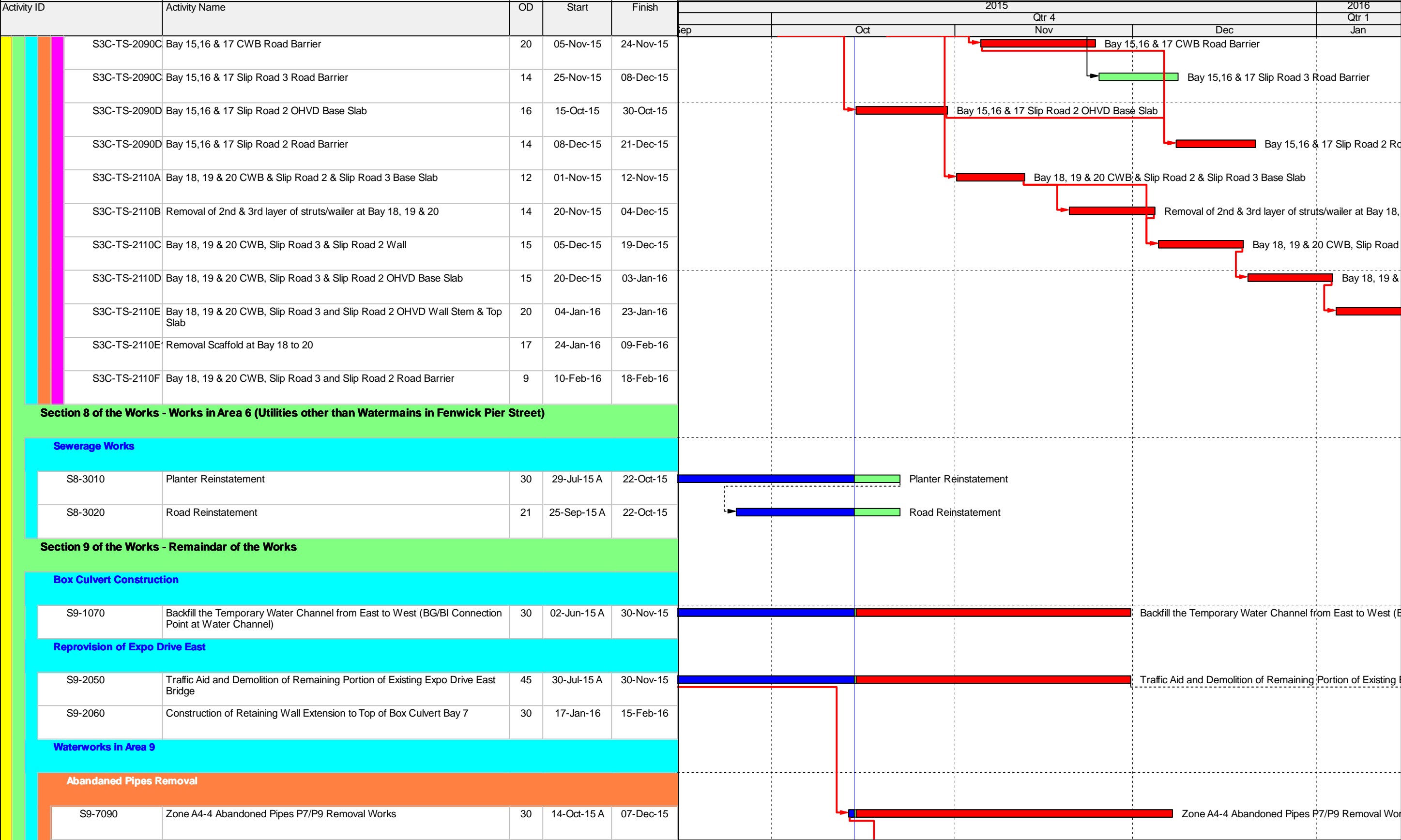
CEDD CONTRACT NO. HK/2009/01

Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)

WORKS PROGRAMME Rev.4 - 3 Month Programme starting from 15-Oct-15

Date	Revision	Checked	Appro...
15-Sep-15	Program 6H 15 Sep 2015		
15-Oct-15	Progress Updated on 15 Oct 2015		

Page 2 of 5
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3-Month Rolling Prog.
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Activity ID	Activity Name	OD	Start	Finish	2015				2016
					Qtr 4				Qtr 1
					Sep	Oct	Nov	Dec	Jan
S9-7100	Zone X1-4a Abandoned Pipes P5 Removal Works	14	20-Oct-15*	08-Dec-15					
Section 9A of the Works - Landscape Softworks in Area 9									
S9A-1000	Transplanting at Expo Drive East and Convention Avenue Junction	180	15-Oct-15	11-Apr-16					
S9A-2000	Landscape Softworks in Area 9 Footpath	60	15-Oct-15	30-Dec-15					
S9A-3000	Completion of the Landscape Softworks in Area 9	0		30-Dec-15					
Section 9B of the Works - Establishment Works in Area 9									
S9B-1000	Establishment Works at Area 9	365	11-Apr-16	10-Apr-17					
Variation Order No.153 - Design and Construct CWB Bypass Tunnel from CH3246 to CH3278									
Preliminaries									
Major Method Statement & Design Submission and Approval									
DS-0020	ELS Design Submission	28	15-Oct-15	28-Oct-15					
DS-0040	Tunnel Structure Design Submission	28	09-Dec-15	16-Jan-16					
MS-0040	Method Statement for Tunnel Excavation in Area 8	7	29-Oct-15	04-Nov-15					
MS-0060	Method Statement for Tunnel Construction in Area 8	14	05-Nov-15	18-Nov-15					
Works at Area 8 - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8									
CWB Tunnelling Works (Stage 4: Ch3246 - Ch3278)									
Stage 4 - Pre-bored H-pile and Dewatering Works (CH3246 - CH3278)									
S4-FW-0020	Installation of Surface Pump Wells (6 nos)	14	15-Oct-15	28-Oct-15					
Stage 4 - Excavation Works (CH3246 - CH3278) include Demolition of C2E BH Wall									
S4-EW-0010	Stage 4 ELS - excavate to approx. -1.5mPD and installation of 1st layer strut/waling at -0.5mPD (approx. 6700 cu.m)	21	26-Jun-15 A	12-Nov-15					
S4-EW-0020	Stage 4 ELS - excavate to approx. -5.7mPD and installation of 2nd layer strut/waling at -4.7mPD (approx. 6600 cu.m)	21	13-Nov-15	04-Dec-15					
S4-EW-0030	Stage 4 ELS - excavate to approx. -10mPD and installation of 3rd layer strut/waling at -9mPD (approx. 6700 cu.m)	21	05-Dec-15	26-Dec-15					
S4-EW-0050	Stage 4 ELS - excavate to formation approx. -15.3mPD (approx. 10,000 cu.m)	20	27-Dec-15	16-Jan-16					
Stage 4 - Tunnel Structure Works (Bay 21 to Bay 22 : CH3246 - CH3278)									

Activity ID	Activity Name	OD	Start	Finish	2015				2016
					Qtr 4				Qtr 1
					Sep	Oct	Nov	Dec	Jan
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	S4-TS-0005	Pile Head Fabrication	15	11-Jan-16	24-Jan-16				
	S4-TS-0010	Bay 21 Base Slab	10	25-Jan-16	03-Feb-16				
	S4-TS-0020	Bay 22 Base Slab	10	28-Jan-16	06-Feb-16				
	S4-TS-0030	Removal of 2nd and 3rd layer of Strut/Waling	28	07-Feb-16	06-Mar-16				
	S4-TS-0040	Bay 21 & 22 Wall	15	07-Mar-16	22-Mar-16				
	S4-TS-0050	Bay 21 & 22 Wall & OHVD Base Slab	15	23-Mar-16	06-Apr-16				
	S4-TS-0060	Bay 21 & 22 OHVD Wall Stem and Top Slab	15	07-Apr-16	22-Apr-16				

Activity ID	Activity Name	Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Activity ID		Activity Name		emainir Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015															2016		
										October			November					December					January				
										11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24		
02.6 - Fabrication & Delivery of Noise Enclosure																											
0260-5000		Int. Noise Enclosure Main + Sub Frames Fab / Del		68	20-Oct-15	09-Jan-16	16-Jan-16	11-Apr-16	74	Int. Noise Enclosure M																	
0260-5010		Int. Noise Enclosure Noise Panel Fab / Del		10	20-Oct-15	31-Oct-15	30-Mar-16	11-Apr-16	131	Int. Noise Enclosure Noise Panel Fab / Del																	
03 - PRELIMINARY WORKS																											
03.3 - Interface Works																											
0261-1000		Constr. of DN75 Storm Drain (Oil street) - ELS and Excavation		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Storm Drain (Oil street) - ELS and Excavation																	
0261-1010		Constr. of DN75 Storm Drain (Oil street) - Casting of Blinding Layer		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Storm Drain (Oil street) - Casting of Blinding Layer																	
0261-1020		Constr. of DN75 Storm Drain (Oil street) - Pipe Laying + Air test		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		of DN75 Storm Drain (Oil street) - Pipe Laying + Air test																	
0261-1030		Constr. of DN75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Lower portion)		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		onstr. of DN75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Lower portion)																	
0261-1040		Constr. of DN75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Upper portion)		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Constr. of DN75 Storm Drain (Oil street) - Constr. of Manhole 1-56 (Upper portion)																	
0261-1050		Constr. of DN75 Storm Drain (Oil street) - Concreting Pipeline intersection		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Constr. of DN75 Storm Drain (Oil street) - Concreting Pipeline intersection																	
0261-1060		Constr. of DN75 Storm Drain (Oil street) - Trench Backfilling		0	20-Oct-15	20-Oct-15	23-Oct-15	23-Oct-15		Constr. of DN75 Storm Drain (Oil street) - Trench Backfilling																	
0261-1070		Constr. of DN75 Storm Drain (Oil street) - Removing ELS		2	20-Oct-15	22-Oct-15	23-Oct-15	24-Oct-15	2	Constr. of DN75 Storm Drain (Oil street) - Removing ELS																	
0261-1080		Constr. of DN75 Storm Drain (Oil street) - Pavement Reinstatement		3	23-Oct-15	26-Oct-15	26-Oct-15	28-Oct-15	2	Constr. of DN75 Storm Drain (Oil street) - Pavement Reinstatement																	
0261-1090		Complete Drainage work at Oil Street		0		28-Oct-15		28-Oct-15	0	Complete Drainage work at Oil Street																	
05 - SECTION 2 & 2A OF THE WORKS																											
05.1 - Cut & Cover Tunnel Ch 4855-4932 (APS Footprint)																											
05.1.3 - APS & Tunnel Structure																											
0513-3060		APS Basement (Bay 21-South) - Staircase Landing 8 > Staircase Landing 12		20	20-Oct-15	12-Nov-15	20-Oct-15	12-Nov-15	0	APS Basement (Bay 21-South) - Staircase Landing 8 > Staircase Landing 12																	
0513-3080		Tunnel Level - South Side Additional Beam at Bay 21		5	07-Nov-15	12-Nov-15	07-Nov-15	12-Nov-15	0	Tunnel Level - South Side Additional Beam at Bay 21																	
0513-3081		Remedial Works - Concrete defect on partition wall		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		medial Works - Concrete defect on partition wall																	
0513-3082		Remedial Works - Panel installation		3	13-Nov-15	16-Nov-15	13-Nov-15	16-Nov-15	0	Remedial Works - Panel installation																	
0513-3083		Remedial Works - Trapped gullies		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		Remedial Works - Trapped gullies																	
0513-3084		Remedial Works - Water seepage on soffit, diaphragm wall and floor slab		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		Remedial Works - Water seepage on soffit, diaphragm wall and floor slab																	
0513-3085		Remedial Works - Concrete defect on completed staircase		3	20-Oct-15	23-Oct-15	13-Nov-15	16-Nov-15	20	Remedial Works - Concrete defect on completed staircase																	
0513-3086		Remedial Works - Cleaning of 150mm & 50mm dia. Cross rd. ducts & Pipes		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		Remedial Works - Cleaning of 150mm & 50mm dia. Cross rd. ducts & Pipes																	
0513-3087		Remedial Works - Concrete defect on walls and slabs at pump sump E & Tunnel		0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		Remedial Works - Concrete defect on walls and slabs at pump sump E & Tunnel																	
0513-3580		Completion of Outstanding Works at APS & Tunnel		0		16-Nov-15		16-Nov-15	0	Completion of Outstanding Works at APS & Tunnel																	
05.1.5 - EVB Sub-structure & Tunnel																											
0515-1120		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 1A : GL1-2/A-E, 2-3/B-E, 3-6/C-F, 4-6/F-I		4	20-Oct-15	24-Oct-15	20-Oct-15	24-Oct-15	0	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 1A : GL1-2/A-E, 2-3/B-E, 3-6/C-F, 4-6/F-I																	
0515-1140		EVB Basement - Col/Partition Wall (Fwk) > Zone 1A to Mezz (-1.40) Soffit		7	20-Oct-15	28-Oct-15	20-Oct-15	28-Oct-15	0	EVB Basement - Col/Partition Wall (Fwk) > Zone 1A to Mezz (-1.40) Soffit																	
0515-1160		EVB Basement - Col/Partition Wall (Conc) > Zone 1A to Mezz (-1.40) Soffit		2	29-Oct-15	30-Oct-15	13-Nov-15	14-Nov-15	13	EVB Basement - Col/Partition Wall (Conc) > Zone 1A to Mezz (-1.40) Soffit																	
0515-1180		EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Falsework/Fwk) > Zone 1A		10	20-Oct-15	31-Oct-15	04-Nov-15	14-Nov-15	12	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Falsework/Fwk) > Zone 1A																	
0515-1200		EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Reb. Fix) > Zone 1A		6	02-Nov-15	07-Nov-15	16-Nov-15	21-Nov-15	12	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Reb. Fix) > Zone 1A																	
0515-1220		EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Conc) > Zone 1A		2	09-Nov-15	10-Nov-15	23-Nov-15	24-Nov-15	12	EVB Basement - Mezz Slab & Beam (Lv -1.4) - (Conc) > Zone 1A																	
0515-1240		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 2A : GL1-6/A-D (incl ST-04)		8	20-Oct-15	29-Oct-15	23-Oct-15	31-Oct-15	2	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 2A : GL1-6/A-D (incl ST-04)																	
0515-1260		EVB Basement - Col/Partition Wall (Fwk) > Zone 2A to Roof Soffit		12	29-Oct-15	11-Nov-15	29-Oct-15	11-Nov-15	0	EVB Basement - Col/Partition Wall (Fwk) > Zone 2A to Roof Soffit																	
0515-1280		EVB Basement - Col/Partition Wall (Conc) > Zone 2A to Roof Soffit		2	12-Nov-15	13-Nov-15	12-Nov-15	13-Nov-15	0	EVB Basement - Col/Partition Wall (Conc) > Zone 2A to Roof Soffit																	
0515-1300		EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Falsework/Fwk) > Zone 2A		6	14-Nov-15	20-Nov-15	14-Nov-15	20-Nov-15	0	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Falsework/Fwk) > Zone 2A																	
0515-1320		EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Reb. Fix) > Zone 2A		3	21-Nov-15	24-Nov-15	21-Nov-15	24-Nov-15	0	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Reb. Fix) > Zone 2A																	
0515-1340		EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Conc) > Zone 2A		1	25-Nov-15	25-Nov-15	25-Nov-15	25-Nov-15	0	EVB Basement - Mezz Slab & Beam (Lv +2.65) - (Conc) > Zone 2A																	
0515-1360		EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 3A : GL1-6/E-H		4	20-Oct-15	24-Oct-15	23-Oct-15	27-Oct-15	2	EVB Basement - Col/Partition Wall (Reb. Fix) > Zone 3A : GL1-6/E-H																	
0515-1380		EVB Basement - Col/Partition Wall (Fwk) > Zone 3A to Roof Soffit		8	26-Oct-15	03-Nov-15	28-Oct-15	05-Nov-15	2	EVB Basement - Col/Partition Wall (Fwk) > Zone 3A to Roof Soffit																	

Remaining Level of Effort

 Milestone

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Contract HY/2009/19

Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

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Activity ID	Activity Name	emainir uration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016			
								October				November				December				January			
								11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24
0610-1900	Construct W/B Bridge Pier 34 - Tie Beam > CJ + post drill rebar & Construction	14	19-Nov-15	04-Dec-15	24-Dec-15	11-Jan-16	30																
0610-1920	Construct W/B Bridge Pier 34 Drilling of Starter Bars for Pier/Column	14	10-Nov-15	25-Nov-15	17-Nov-15	02-Dec-15	6																
0610-1940	Construct W/B Bridge Pier 34 Construct Crosshead	15	26-Nov-15	12-Dec-15	03-Dec-15	19-Dec-15	6																
0610-1960	Construct W/B Bridge Pier 34 - Install Bearing	6	14-Dec-15	19-Dec-15	21-Dec-15	28-Dec-15	6																
06.3 - Admin Building																							
0630-1120	Grd. Beam - (GL > L-N) - Install Capping Plate	0	20-Oct-15	20-Oct-15	12-Nov-15	12-Nov-15																	
0630-1140	Grd. Beam - (GL > L-N) - Rebar Fixing for Ground Beam	12	20-Oct-15	03-Nov-15	12-Nov-15	25-Nov-15	19																
0630-1160	Grd. Beam - (GL > L-N) - Erect Formworks for Ground Beam	15	20-Oct-15	06-Nov-15	12-Nov-15	28-Nov-15	19																
0630-1180	Grd. Beam - (GL > L-N) - Cast Concrete for Ground Beam	1	07-Nov-15	07-Nov-15	30-Nov-15	30-Nov-15	19																
0630-1200	Grd. Beam - (GL > L-N) - Formworks Removal	1	09-Nov-15	09-Nov-15	01-Dec-15	01-Dec-15	19																
0630-1880	Grd. Beam - (GL > P-R) - Removal of Existing Sheet Piles	4	12-Jan-16	15-Jan-16	12-Jan-16	15-Jan-16	0																
0630-1900	Grd. Beam - (GL > P-R) - Excavate to formation level + Blinding Layer Casting	5	16-Jan-16	21-Jan-16	16-Jan-16	21-Jan-16	0																
0630-1920	Grd. Beam - (GL > P-R) - Install Capping Plate	6	21-Jan-16	27-Jan-16	21-Jan-16	27-Jan-16	0																
0630-1940	Grd. Beam - (GL > P-R) - Rebar Fixing for Beam	7	25-Jan-16	01-Feb-16	25-Jan-16	01-Feb-16	0																
0630-2021	Grd. Beam - (GL > C-F)-Portion VB < By Others > Excav. to formation level + Blinding Layer Casting	2	19-Nov-15	20-Nov-15	24-Nov-15	25-Nov-15	4																
0630-2040	Grd. Beam - (GL > C-F)-Portion VB < By Others > Install Capping Plate	3	21-Nov-15	24-Nov-15	26-Nov-15	28-Nov-15	4																
0630-2080	Grd. Beam - (GL > C-F)-Portion VB < By Others > Rebar Fixing for Ground Beam	9	23-Nov-15	02-Dec-15	27-Nov-15	07-Dec-15	4																
0630-2100	Grd. Beam - (GL > C-F)-Portion VB < By Others > Erect Formworks for Ground Beam	4	02-Dec-15	05-Dec-15	07-Dec-15	10-Dec-15	4																
0630-2120	Grd. Beam - (GL > C-F)-Portion VB < By Others > Cast Concrete for Ground Beam	1	07-Dec-15	07-Dec-15	11-Dec-15	11-Dec-15	4																
0630-2140	Grd. Beam - (GL > C-F)-Portion VB < By Others > Formworks Removal	1	08-Dec-15	08-Dec-15	12-Dec-15	12-Dec-15	4																
0630-2141	Grd. Beam -Portion VD - Excavate to formation level + Blinding Layer Casting	3	09-Dec-15	11-Dec-15	14-Dec-15	16-Dec-15	4																
0630-2142	Grd. Beam -Portion VD - Install Capping Plate	4	12-Dec-15	16-Dec-15	17-Dec-15	21-Dec-15	4																
0630-2143	Grd. Beam -Portion VD - Rebar Fixing for Ground Beam	11	15-Dec-15	28-Dec-15	19-Dec-15	02-Jan-16	4																
0630-2144	Grd. Beam -Portion VD - Erect Formworks for Ground Beam	5	28-Dec-15	02-Jan-16	02-Jan-16	07-Jan-16	4																
0630-2145	Grd. Beam -Portion VD - Cast Concrete for Ground Beam	1	04-Jan-16	04-Jan-16	08-Jan-16	08-Jan-16	4																
0630-2146	Grd. Beam -Portion VD - Formworks Removal	2	05-Jan-16	06-Jan-16	09-Jan-16	11-Jan-16	4																
0630-2440	Complete ADB Ground Beam (Portion VB & VD)	0		11-Jan-16		11-Jan-16	0																
0630-2441	ADB Drilling & Starter Bar Fixing - Cleaning + Setting out & Marking (to be confirmed)	5	07-Jan-16	12-Jan-16	12-Jan-16	16-Jan-16	4																
0630-2442	ADB Drilling & Starter Bar Fixing - Structural Walls @ 4 Gang (to be confirmed)	15	13-Jan-16	29-Jan-16	18-Jan-16	03-Feb-16	4																
0630-2443	ADB Drilling & Starter Bar Fixing - Drilling of Non structural Walls @ 4 Gang (to be confirmed)	15	13-Jan-16	29-Jan-16	18-Jan-16	03-Feb-16	4																
0700-1000	Grd. Beam - (GL > B-C) - Removal of Steel Moulds	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15																	
0700-1010	Grd. Beam - (GL > B-C) - Working Platform Removal & Wailing Removal	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15																	
0700-1020	Grd. Beam - (GL > B-C) - Backfill	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15																	
0700-1030	Grd. Beam - (GL > B-C) - Removal of Existing Sheet Piles	1	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15	0																
0700-1040	Grd. Beam - (GL > B-C) - Blinding Layer Casting	1	22-Oct-15	22-Oct-15	22-Oct-15	22-Oct-15	0																
0700-1050	Grd. Beam - (GL > B-C) - H-Pile trimming & Cutting of Casing	2	23-Oct-15	24-Oct-15	23-Oct-15	24-Oct-15	0																
0700-1060	Grd. Beam - (GL > B-C) - Capping Plate Welding / U Bars Welding (9nos)	3	26-Oct-15	28-Oct-15	26-Oct-15	28-Oct-15	0																
0700-1070	Grd. Beam - (GL > B-C) - Reinforcement Fixing	3	29-Oct-15	31-Oct-15	29-Oct-15	31-Oct-15	0																
0700-1080	Grd. Beam - (GL > B-C) - Formworks Erection	2	02-Nov-15	03-Nov-15	02-Nov-15	03-Nov-15	0																
0700-1090	Grd. Beam - (GL > B-C) - Concreting	1	04-Nov-15	04-Nov-15	04-Nov-15	04-Nov-15	0																
0700-1100	Grd. Beam - (GL > B-C) - Formwork Removal	1	05-Nov-15	05-Nov-15	05-Nov-15	05-Nov-15	0																
0700-1110	Grd. Beam - (GL > F-G) - Backfill	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15																	
0700-1120	Grd. Beam - (GL > F-G) - Excavation & Old Cap Cutting + Sheet Piling	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15																	

Activity ID	Activity Name	Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016			
								October			November				December				January				
								11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24
0810-1740	Construction of pile cap for Retaining Wall F @ PC12	21	09-Nov-15	02-Dec-15	28-Jun-16	22-Jul-16	190	Construction of pile cap for Retaining Wall F @ PC12															
0810-1760	Construction of pile cap for Retaining Wall F @ PC13	21	25-Nov-15	18-Dec-15	15-Jul-16	08-Aug-16	190	Construction of pile cap for Retaining Wall F @ PC13															
0810-1780	Backfill of Retaining Wall F Pile Caps	7	19-Dec-15	28-Dec-15	14-Jan-17	21-Jan-17	323	Backfill of Retaining Wall F Pile Caps															
0820-1000	low wall bet C4-13/14	5	24-Nov-15	28-Nov-15	06-Jan-17	11-Jan-17	338	low wall bet C4-13/14															
0820-1010	low wall bet C5-11/12	7	24-Nov-15	01-Dec-15	06-Jan-17	13-Jan-17	338	low wall bet C5-11/12															
09 - SECTION 6 OF THE WORKS																							
09.2 - Westbound - Pier 26-27																							
0920-1080	Pier 27 Prepare C.J. for Column Construction	0	20-Oct-15	20-Oct-15	12-Jan-16	12-Jan-16		Pier 27 Prepare C.J. for Column Construction															
0920-1100	Pier 27 Construct Pier/Column	0	20-Oct-15	20-Oct-15	12-Jan-16	12-Jan-16		Pier 27 Construct Pier/Column															
0920-1120	Pier 27 Construct Crosshead	23	20-Oct-15	16-Nov-15	12-Jan-16	06-Feb-16	69	Pier 27 Construct Crosshead															
0920-1140	Pier 27 Install Bearing	9	16-Nov-15	26-Nov-15	11-Feb-16	20-Feb-16	69	Pier 27 Install Bearing															
0920-1160	Pier 26 Prepare C.J. for Column Construction	0	20-Oct-15	20-Oct-15	04-Jan-16	04-Jan-16		Pier 26 Prepare C.J. for Column Construction															
0920-1180	Pier 26 Construct Pier/Column	17	20-Oct-15	10-Nov-15	04-Jan-16	23-Jan-16	63	Pier 26 Construct Pier/Column															
0920-1200	Pier 26 Construct Crosshead	24	10-Nov-15	08-Dec-15	25-Jan-16	24-Feb-16	63	Pier 26 Construct Crosshead															
0920-1220	Pier 26 Install Bearing	9	08-Dec-15	18-Dec-15	25-Feb-16	05-Mar-16	63	Pier 26 Install Bearing															
10 - SECTION X OF THE WORKS																							
10.4 - Bridge Deck Demolition																							
10.4.1 - Existing W/B Bridge (Part 1)																							
10410-1749	Dem. W/B Bridge Deck Pier 17-18 (1 beam) > by Crane B	0	20-Oct-15	20-Oct-15	24-Mar-16	24-Mar-16		Dem. W/B Bridge Deck Pier 17-18 (1 beam) > by Crane B															
10410-1750	Demolish W/B Bridge Deck Pier 17-18 (1 beam) > by Crane B	0	20-Oct-15	20-Oct-15	24-Mar-16	24-Mar-16		Demolish W/B Bridge Deck Pier 17-18 (1 beam) > by Crane B															
10410-1753	Demolish W/B Bridge Deck Pier 18-19 (2 beams) > Saw Cutting of Bridge Deck & Parapet + Coring	0	20-Oct-15	20-Oct-15	24-Mar-16	24-Mar-16		Demolish W/B Bridge Deck Pier 18-19 (2 beams) > Saw Cutting of Bridge Deck & Parapet + Coring															
10410-1754	Dem. W/B Bridge Deck Pier 18-19 (Half Beam-Eastside) w/ time constraint start at 4Pm > by Crane D	0	20-Oct-15	20-Oct-15	24-Mar-16	24-Mar-16		Dem. W/B Bridge Deck Pier 18-19 (Half Beam-Eastside) w/ time constraint start at 4Pm > by Crane D															
10410-1755	Demolish W/B Bridge Deck Pier 18-19 (Half Beam-Eastside) > by Crane D	0	20-Oct-15	20-Oct-15	24-Mar-16	24-Mar-16		Demolish W/B Bridge Deck Pier 18-19 (Half Beam-Eastside) > by Crane D															
10410-1756	Dem. W/B Bridge Deck Pier 18-19 (Half Beam-Westside) w/ time constraint start at 4Pm > by Crane D	0	20-Oct-15	20-Oct-15	24-Mar-16	24-Mar-16		Dem. W/B Bridge Deck Pier 18-19 (Half Beam-Westside) w/ time constraint start at 4Pm > by Crane D															
10410-1757	Demolish W/B Bridge Deck Pier 18-19 (Half Beam-Westside) > by Crane D	0	20-Oct-15	20-Oct-15	24-Mar-16	24-Mar-16		Demolish W/B Bridge Deck Pier 18-19 (Half Beam-Westside) > by Crane D															
10410-1760	Cutting of W/B Bridge Crosshead Wing at Pier 19 for Modification > by Crane D	0	20-Oct-15	20-Oct-15	29-Mar-16	29-Mar-16		Cutting of W/B Bridge Crosshead Wing at Pier 19 for Modification > by Crane D															
10410-1761	Cutting of W/B Bridge Crosshead Wing at Pier 18 for Modification > by Crane D	2	20-Oct-15	22-Oct-15	24-Mar-16	26-Mar-16	128	Cutting of W/B Bridge Crosshead Wing at Pier 18 for Modification > by Crane D															
10410-1762	Removal of Shoring	0	20-Oct-15	20-Oct-15	22-Apr-16	22-Apr-16		Removal of Shoring															
10410-1763	Removal of Temporary Footing	0	20-Oct-15	20-Oct-15	22-Apr-16	22-Apr-16		Removal of Temporary Footing															
10410-2400	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 38	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15		Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 38															
10410-2420	Demolish Temp. W/B Bridge - Deck > Pier 36 to 37 (6 beams)	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15		Demolish Temp. W/B Bridge - Deck > Pier 36 to 37 (6 beams)															
10410-2440	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 37	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15		Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 37															
10410-2460	Demolish Temp. W/B Bridge - Deck > Pier 34 to 35 (6 beams)	0	20-Oct-15	20-Oct-15	20-Oct-15	20-Oct-15		Demolish Temp. W/B Bridge - Deck > Pier 34 to 35 (6 beams)															
10410-2480	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 36	6	24-Oct-15	30-Oct-15	24-Oct-15	30-Oct-15	0	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 36															
10410-2500	Demolish Temp. W/B Bridge - Deck > Pier 35 to 36 (6 beams)	3	20-Oct-15	23-Oct-15	20-Oct-15	23-Oct-15	0	Demolish Temp. W/B Bridge - Deck > Pier 35 to 36 (6 beams)															
10410-2520	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 35 (by crane)	6	03-Nov-15	09-Nov-15	10-Nov-15	16-Nov-15	6	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 35 (by crane)															
10410-2540	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 34 (by crane)	6	03-Nov-15	09-Nov-15	10-Nov-15	16-Nov-15	6	Demolish Temp. W/B Bridge - Crosshead & Pier > Pier 34 (by crane)															
10.1 - E/B Bridges (Bridge D, E and F)																							
10.1.1 - Marine Pier Construction																							
Pier F01 to F02																							
1011-8600	F1B Pier/Column Construction	12	20-Oct-15	03-Nov-15	29-Oct-15	11-Nov-15	7	F1B Pier/Column Construction															
1011-8620	F1B Crosshead Construction	18	04-Nov-15	24-Nov-15	12-Nov-15	02-Dec-15	7	F1B Crosshead Construction															
1011-8640	Bearing installation pier F1B & F2B	12	25-Nov-15	08-Dec-15	03-Dec-15	16-Dec-15	7	Bearing installation pier F1B & F2B															

- Remaining Level of Effort
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

Contract HY/2009/19

Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

Activity ID		Activity Name			emairir Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015															2016		
											October			November						December				January				
											11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24		
10.1.4 - Bridge E / Hing Fat Slip Road																												
Bridge Construction																												
1014-1880	Construction (Pier E4 - Pier E2) > Construct Crosshead + Bearing at Pier E3				0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		(Pier E4 - Pier E2) > Construct Crosshead + Bearing at Pier E3																	
1014-1900	Construction (Pier E4 - Pier E2) > Modification of Crosshead + Bearing at Pier E4 & E2				0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		r E4 - Pier E2) > Modification of Crosshead + Bearing at Pier E4 & E2																	
1014-1920	Construction (Pier E4 - Pier E2) > Erect 3nos Beams > Pier E3-E2				0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		ction (Pier E4 - Pier E2) > Erect 3nos Beams > Pier E3-E2																	
1014-1940	Construction (Pier E4 - Pier E2) > Erect 3nos Beams > Pier E4-E3				0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		Construction (Pier E4 - Pier E2) > Erect 3nos Beams > Pier E4-E3																	
1015-1950	Bridge E (Pier E2 - E3) - Planking				0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		■ Bridge E (Pier E2 - E3) - Planking																	
1015-1960	Bridge E (Pier E2 - E3) - Scaffolding				0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		■ Bridge E (Pier E2 - E3) - Scaffolding																	
1015-1970	Bridge E (Pier E2 - E3) - Soffit Formworks				1	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15	4	■ Bridge E (Pier E2 - E3) - Soffit Formworks																	
1015-1980	Bridge E (Pier E2 - E3) - (Diaphragm + Decking) - Rebar Fixing				3	22-Oct-15	24-Oct-15	27-Oct-15	29-Oct-15	4	■ Bridge E (Pier E2 - E3) - (Diaphragm + Decking) - Rebar Fixing																	
1015-1990	Bridge E (Pier E2 - E3) - D(Diaphragm + Decking) - Install Shutter				1	24-Oct-15	24-Oct-15	29-Oct-15	29-Oct-15	4	■ Bridge E (Pier E2 - E3) - D(Diaphragm + Decking) - Install Shutter																	
1015-2000	Bridge E (Pier E2 - E3) - (Diaphragm + Decking) - Concreting				1	26-Oct-15	26-Oct-15	30-Oct-15	30-Oct-15	4	■ Bridge E (Pier E2 - E3) - (Diaphragm + Decking) - Concreting																	
1015-2010	Bridge E (Pier E2 - E3) - (Wing Extension) - Hanger platform (Sea Side)				5	27-Oct-15	31-Oct-15	31-Oct-15	05-Nov-15	4	■ Bridge E (Pier E2 - E3) - (Wing Extension) - Hanger platform (Sea Side)																	
1015-2020	Bridge E (Pier E2 - E3) - (Wing Extension) - Rebar fixing				3	02-Nov-15	04-Nov-15	06-Nov-15	09-Nov-15	4	■ Bridge E (Pier E2 - E3) - (Wing Extension) - Rebar fixing																	
1015-2030	Bridge E (Pier E2 - E3) - (Wing Extension) - Install shutter				1	04-Nov-15	04-Nov-15	09-Nov-15	09-Nov-15	4	■ Bridge E (Pier E2 - E3) - (Wing Extension) - Install shutter																	
1015-2040	Bridge E (Pier E2 - E3) - (Wing Extension) - Concreting				1	05-Nov-15	05-Nov-15	10-Nov-15	10-Nov-15	4	■ Bridge E (Pier E2 - E3) - (Wing Extension) - Concreting																	
1015-2050	Bridge E (Pier E2 - E3) - Parapet - Stage 2				6	06-Nov-15	12-Nov-15	11-Nov-15	17-Nov-15	4	■ Bridge E (Pier E2 - E3) - Parapet - Stage 2																	
1015-2060	Bridge E (Pier E2 - E3) - Duct Laying - Satage 2				6	06-Nov-15	12-Nov-15	12-Nov-15	18-Nov-15	5	■ Bridge E (Pier E2 - E3) - Duct Laying - Satage 2																	
1015-2070	Bridge E (Pier E2 - E3) - M.J				2	13-Nov-15	14-Nov-15	19-Nov-15	20-Nov-15	5	■ Bridge E (Pier E2 - E3) - M.J																	
1015-2080	Bridge E (Pier E2 - E3) - L3 Railing - Stage 2				3	13-Nov-15	16-Nov-15	18-Nov-15	20-Nov-15	4	■ Bridge E (Pier E2 - E3) - L3 Railing - Stage 2																	
1015-2090	Bridge E (Pier E2 - E3) - Asphalt				3	17-Nov-15	19-Nov-15	21-Nov-15	24-Nov-15	4	■ Bridge E (Pier E2 - E3) - Asphalt																	
1015-2100	Bridge E (Pier E2 - E3) - Road Marking				2	20-Nov-15	21-Nov-15	25-Nov-15	26-Nov-15	4	■ Bridge E (Pier E2 - E3) - Road Marking																	
1015-2110	Bridge E (Pier E2 - E3) - Parapet - Stage 1				6	27-Oct-15	02-Nov-15	04-Nov-15	10-Nov-15	7	■ Bridge E (Pier E2 - E3) - Parapet - Stage 1																	
1015-2120	Bridge E (Pier E2 - E3) - Duct Laying - Satage 1				6	27-Oct-15	02-Nov-15	05-Nov-15	11-Nov-15	8	■ Bridge E (Pier E2 - E3) - Duct Laying - Satage 1																	
1015-2130	Bridge E (Pier E2 - E3) - L3 Railing - Stage 1				4	03-Nov-15	06-Nov-15	13-Nov-15	17-Nov-15	9	■ Bridge E (Pier E2 - E3) - L3 Railing - Stage 1																	
1015-2140	Bridge E (Pier E3 - E4) - Planking				0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		ge E (Pier E3 - E4) - Planking																	
1015-2150	Bridge E (Pier E3 - E4) - Scaffolding				0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		■ Bridge E (Pier E3 - E4) - Scaffolding																	
1015-2160	Bridge E (Pier E3 - E4) - Soffit Formwork				0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		■ Bridge E (Pier E3 - E4) - Soffit Formwork																	
1015-2170	Bridge E (Pier E3 - E4) - (Diaphragm + Additional Diaphragm + Decking) - Rebar Fixing				2	20-Oct-15	22-Oct-15	31-Oct-15	02-Nov-15	9	■ Bridge E (Pier E3 - E4) - (Diaphragm + Additional Diaphragm + Decking) - Rebar Fixing																	
1015-2180	Bridge E (Pier E3 - E4) - (Diaphragm + Additional Diaphragm + Decking) - Shutter				1	22-Oct-15	22-Oct-15	02-Nov-15	02-Nov-15	9	■ Bridge E (Pier E3 - E4) - (Diaphragm + Additional Diaphragm + Decking) - Shutter																	
1015-2190	Bridge E (Pier E3 - E4) - (Diaphragm + Additional Diaphragm + Decking) - Concreting				1	23-Oct-15	23-Oct-15	03-Nov-15	03-Nov-15	9	■ Bridge E (Pier E3 - E4) - (Diaphragm + Additional Diaphragm + Decking) - Concreting																	
1015-2200	Bridge E (Pier E3 - E4) - Parapet				7	23-Oct-15	30-Oct-15	03-Nov-15	10-Nov-15	9	■ Bridge E (Pier E3 - E4) - Parapet																	
1015-2210	Bridge E (Pier E3 - E4) - Drain Pipe Laying				7	23-Oct-15	30-Oct-15	03-Nov-15	10-Nov-15	9	■ Bridge E (Pier E3 - E4) - Drain Pipe Laying																	
1015-2220	Bridge E (Pier E3 - E4) - M.J				2	31-Oct-15	02-Nov-15	11-Nov-15	12-Nov-15	9	■ Bridge E (Pier E3 - E4) - M.J																	
1015-2230	Bridge E (Pier E3 - E4) - L3 Railing				7	03-Nov-15	10-Nov-15	13-Nov-15	20-Nov-15	9	■ Bridge E (Pier E3 - E4) - L3 Railing																	
1015-2240	Bridge E (Pier E3 - E4) - Asphalt				3	11-Nov-15	13-Nov-15	21-Nov-15	24-Nov-15	9	■ Bridge E (Pier E3 - E4) - Asphalt																	
1015-2250	Bridge E (Pier E3 - E4) - Road Marking				2	14-Nov-15	16-Nov-15	25-Nov-15	26-Nov-15	9	■ Bridge E (Pier E3 - E4) - Road Marking																	
1015-2260	Bridge E (Pier E4 towards HFS-Rd) - Scaffolding				0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		Bridge E (Pier E4 towards HFS-Rd) - Scaffolding																	
1015-2270	Bridge E (Pier E4 towards HFS-Rd) - Formwork				0	20-Oct-15	20-Oct-15	08-Nov-19	08-Nov-19		■ Bridge E (Pier E4 towards HFS-Rd) - Formwork																	
1015-2280	Bridge E (Pier E4 towards HFS-Rd) - Wing Extension				1	20-Oct-15	20-Oct-15	13-Nov-15	13-Nov-15	20	■ Bridge E (Pier E4 towards HFS-Rd) - Wing Extension																	
1015-2290	Bridge E (Pier E4 towards HFS-Rd) - Parapet				4	22-Oct-15	26-Oct-15	14-Nov-15	18-Nov-15	20	■ Bridge E (Pier E4 towards HFS-Rd) - Parapet																	
1015-2300	Bridge E (Pier E4 towards HFS-Rd) - Draine - pipe Laying				4	22-Oct-15	26-Oct-15	14-Nov-15	18-Nov-15	20	■ Bridge E (Pier E4 towards HFS-Rd) - Draine - pipe Laying																	
1015-2310	Bridge E (Pier E4 towards HFS-Rd) - L3 Railing				3	27-Oct-15	29-Oct-15	19-Nov-15	21-Nov-15	20	■ Bridge E (Pier E4 towards HFS-Rd) - L3 Railing																	

Remaining Level of Effort ◆ ◆ Milestone

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Contract HY/2009/19

Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

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Activity ID	Activity Name	Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016				
								October			November				December					January				
								11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	
	1015-2320	Bridge E (Pier E4 towards HFS-Rd) - Asphalt	2	30-Oct-15	31-Oct-15	23-Nov-15	24-Nov-15	20																
	1015-2330	Bridge E (Pier E4 towards HFS-Rd) - Road Marking	2	02-Nov-15	03-Nov-15	25-Nov-15	26-Nov-15	20																
10.2 - W/B Bridges (Bridge C and F)																								
10.2.1 - Pier Construction																								
Pier 38 to 43																								
1021-1820	Pier 38 (F3C) Prepare C.J. at Existing Pile Cap	0	20-Oct-15	20-Oct-15	05-Jan-16	05-Jan-16		Pier 38 (F3C) Prepare C.J. at Existing Pile Cap																
1021-1840	Pier 38 (F3C) Construct Pier/Column	18	20-Oct-15	10-Nov-15	05-Jan-16	25-Jan-16	63	Pier 38 (F3C) Construct Pier/Column																
1021-1860	Pier 38 (F3C) Construct Crosshead	24	11-Nov-15	08-Dec-15	26-Jan-16	25-Feb-16	63	Pier 38 (F3C) Construct Crosshead																
1021-1880	Pier 38 (F3C) Install Bearing	9	09-Dec-15	18-Dec-15	26-Feb-16	07-Mar-16	63	Pier 38 (F3C) Install Bearing																
1021-1900	Pier 39 (F4C) Prepare C.J. at Existing Pile Cap	0	20-Oct-15	20-Oct-15	13-Jan-16	13-Jan-16		Pier 39 (F4C) Prepare C.J. at Existing Pile Cap																
1021-1920	Pier 39 (F4C) Construct Pier/Column	17	20-Oct-15	10-Nov-15	13-Jan-16	02-Feb-16	71	Pier 39 (F4C) Construct Pier/Column																
1021-1940	Pier 39 (F4C) Construct Crosshead	24	10-Nov-15	08-Dec-15	03-Feb-16	04-Mar-16	71	Pier 39 (F4C) Construct Crosshead																
1021-1960	Pier 39 (F4C) Install Bearing	9	08-Dec-15	18-Dec-15	05-Mar-16	15-Mar-16	71	Pier 39 (F4C) Install Bearing																
1021-1980	Pier 40 (F5C) Prepare C.J. at Existing Pile Cap	0	20-Oct-15	20-Oct-15	13-Jan-16	13-Jan-16		Pier 40 (F5C) Prepare C.J. at Existing Pile Cap																
1021-2000	Pier 40 (F5C) Construct Pier/Column	17	20-Oct-15	10-Nov-15	13-Jan-16	02-Feb-16	71	Pier 40 (F5C) Construct Pier/Column																
1021-2020	Pier 40 (F5C) Construct Crosshead	24	10-Nov-15	08-Dec-15	03-Feb-16	04-Mar-16	71	Pier 40 (F5C) Construct Crosshead																
1021-2040	Pier 40 (F5C) Install Bearing	9	08-Dec-15	18-Dec-15	05-Mar-16	15-Mar-16	71	Pier 40 (F5C) Install Bearing																
1021-2060	Pier 41 (F6C) Prepare C.J. at Existing Pile Cap	0	20-Oct-15	20-Oct-15	05-Jan-16	05-Jan-16		Pier 41 (F6C) Prepare C.J. at Existing Pile Cap																
1021-2080	Pier 41 (F6C) Construct Pier/Column	18	20-Oct-15	10-Nov-15	05-Jan-16	25-Jan-16	63	Pier 41 (F6C) Construct Pier/Column																
1021-2100	Pier 41 (F6C) Construct Crosshead	24	11-Nov-15	08-Dec-15	23-Feb-16	21-Mar-16	84	Pier 41 (F6C) Construct Crosshead																
1021-2120	Pier 41 (F6C) Install Bearing	9	09-Dec-15	18-Dec-15	22-Mar-16	02-Apr-16	84	Pier 41 (F6C) Install Bearing																
1021-2160	Pier 42 (F7C) Construct Pier/Column	0	20-Oct-15	20-Oct-15	13-Jan-16	13-Jan-16		Pier 42 (F7C) Construct Pier/Column																
1021-2180	Pier 42 (F7C) Construct Crosshead	24	20-Oct-15	17-Nov-15	17-Mar-16	16-Apr-16	122	Pier 42 (F7C) Construct Crosshead																
1021-2200	Pier 42 (F7C) Install Bearing	9	17-Nov-15	27-Nov-15	18-Apr-16	27-Apr-16	122	Pier 42 (F7C) Install Bearing																
1021-2240	Pier 43 (F8C) Construct Pier/Column	0	20-Oct-15	20-Oct-15	13-Jan-16	13-Jan-16		Pier 43 (F8C) Construct Pier/Column																
1021-2260	Pier 43 (F8C) Construct Crosshead	24	20-Oct-15	17-Nov-15	31-Mar-16	28-Apr-16	132	Pier 43 (F8C) Construct Crosshead																
1021-2280	Pier 43 (F8C) Install Bearing	9	18-Nov-15	27-Nov-15	29-Apr-16	09-May-16	132	Pier 43 (F8C) Install Bearing																
Pier 36 to 37																								
1021-1580	Pier 36 (F1C) Prepare CJ at Existing Pile Cap	11	31-Oct-15	12-Nov-15	19-Nov-15	01-Dec-15	16	Pier 36 (F1C) Prepare CJ at Existing Pile Cap																
1021-1600	Pier 36 (F1C) Construct Pier/Column	18	13-Nov-15	03-Dec-15	02-Dec-15	22-Dec-15	16	Pier 36 (F1C) Construct Pier/Column																
1021-1620	Pier 36 (F1C) Construct Crosshead	24	04-Dec-15	02-Jan-16	23-Dec-15	21-Jan-16	16	Pier 36 (F1C) Construct Crosshead																
1021-1640	Pier 36 (F1C) Install Bearing	9	04-Jan-16	13-Jan-16	22-Jan-16	01-Feb-16	16	Pier 36 (F1C) Install Bearing																
1021-1660	Pier 37 (F2C) Prepare CJ at Existing Pile Cap	11	20-Oct-15	02-Nov-15	09-Dec-15	21-Dec-15	42	Pier 37 (F2C) Prepare CJ at Existing Pile Cap																
1021-1680	Pier 37 (F2C) Construct Pier/Column	18	03-Nov-15	23-Nov-15	22-Dec-15	13-Jan-16	42	Pier 37 (F2C) Construct Pier/Column																
1021-1700	Pier 37 (F2C) Construct Crosshead	24	24-Nov-15	21-Dec-15	14-Jan-16	13-Feb-16	42	Pier 37 (F2C) Construct Crosshead																
1021-1720	Pier 37 (F2C) Install Bearing	9	22-Dec-15	02-Jan-16	15-Feb-16	24-Feb-16	42	Pier 37 (F2C) Install Bearing																
Abutment D12																								
1021-1020	Construct Abutment D12 W/B Bridge	30	10-Nov-15	14-Dec-15	08-Dec-15	13-Jan-16	24	Construct Abutment D12 W/B Bridge																
1021-1040	Bearing installation D12 W/B Bridge	9	15-Dec-15	24-Dec-15	14-Jan-16	23-Jan-16	24	Bearing installation D12 W/B Bridge																
Pier 28																								
1021-1760	Pier 28 Construct Pier/Column	0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		Pier 28 Construct Pier/Column																
1021-1780	Pier 28 Construct Crosshead	0	20-Oct-15	20-Oct-15	26-Oct-15	26-Oct-15		Pier 28 Construct Crosshead																
1021-1800	Pier 28 Install Bearing	5	20-Oct-15	26-Oct-15	26-Oct-15	30-Oct-15	4	Pier 28 Install Bearing																

- Remaining Level of Effort
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

Contract HY/2009/19

Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

Activity ID	Activity Name	Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Contract HY/2009/19

Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

Activity ID	Activity Name	emainir Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016					
								October			November				December					January					
								11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24		
1022-1457	Bridge C4 - Erect T-Span Segment at Piers 31 (12 nos) > by LG1	8	27-Nov-15	05-Dec-15	27-Nov-15	05-Dec-15	0		Bridge C4 - Erect T-Span Segment at Piers 31 (12 nos) > by LG1																
	1022-1458	Bridge C4 - Erect End Span Segment at Piers 32 (4 nos) > by LG1	3	07-Dec-15	09-Dec-15	07-Dec-15	09-Dec-15	0		Bridge C4 - Erect End Span Segment at Piers 32 (4 nos) > by LG1															
	1022-1458.2	Bridge C4 - Stitching between Pier 28 - 29	2	19-Nov-15	20-Nov-15	27-Feb-16	29-Feb-16	81		Bridge C4 - Stitching between Pier 28 - 29															
	1022-1458.3	Bridge C4 - Stitching between Pier 29 - 30	2	26-Nov-15	27-Nov-15	27-Feb-16	29-Feb-16	75		Bridge C4 - Stitching between Pier 29 - 30															
	1022-1458.4	Bridge C4 - Stitching between Pier 30 - 31	2	07-Dec-15	08-Dec-15	27-Feb-16	29-Feb-16	66		Bridge C4 - Stitching between Pier 30 - 31															
	1022-1459	Bridge C4 - Stitching between Pier 31 - 32	2	10-Dec-15	11-Dec-15	10-Dec-15	11-Dec-15	0		Bridge C4 - Stitching between Pier 31 - 32															
	1022-1460	Bridge C4 - External Stressing	10	12-Dec-15	23-Dec-15	01-Mar-16	11-Mar-16	63		Bridge C4 - External Stressing															
	1022-1620	Bridge C4 - Construct South Parapet (108m)	23	24-Dec-15	21-Jan-16	12-Mar-16	11-Apr-16	63		Bridge C4 - Construct South Parapet (108m)															
	1022-1640	Bridge C4 - Construct North Parapet (108m)	23	24-Dec-15	21-Jan-16	12-Mar-16	11-Apr-16	63		Bridge C4 - Construct North Parapet (108m)															
	1022-3830	Complete Part of Portion VB (from Pier 28 - Pier 32)	0		11-Dec-15		11-Dec-15	0		Complete Part of Portion VB (from Pier 28 - Pier 32)															
	1022-3840	Handover to Portion VB to CC contract (from Pier 28 - Pier 34)	0		11-Jan-16		11-Jan-16	0		Handover to Portion VB to CC contract (from Pier 28 - Pier 34)															
Bridge C5																									
1022-1570	Bridge C5 - Erect T-span at Pier 33 (10 nos) > by LG1	9	10-Dec-15	19-Dec-15	10-Dec-15	19-Dec-15	0		Bridge C5 - Erect T-span at Pier 33 (10 nos) > by LG1																
	1022-1575	Bridge C4 - Erect End Span Segment at Piers 32 (5 nos) > by LG1	5	21-Dec-15	26-Dec-15	21-Dec-15	26-Dec-15	0		Bridge C4 - Erect End Span Segment at Piers 32 (5 nos) > by LG1															
	1022-1578	Luanch LG1 to Pier 34 - Pier 36	1	28-Dec-15	28-Dec-15	28-Dec-15	28-Dec-15	0		Luanch LG1 to Pier 34 - Pier 36															
	1022-1580	Bridge C5 - Erect T-span at Pier 34 (8 nos) > By LG1	8	29-Dec-15	07-Jan-16	29-Dec-15	07-Jan-16	0		Bridge C5 - Erect T-span at Pier 34 (8 nos) > By LG1															
	1022-1585	Bridge C5 - Erect Pier Segment at Abut D12 (2 nos) > by LG1	2	08-Jan-16	09-Jan-16	25-Jan-16	26-Jan-16	14		Bridge C5 - Erect Pier Segment at Abut D12 (2 nos) > by LG1															
	1022-1588	Bridge C5 - Erect E-span at Abut D12 (5 nos) > by LG1	5	11-Jan-16	15-Jan-16	27-Jan-16	01-Feb-16	14		Bridge C5 - Erect E-span at Abut D12 (5 nos) > by LG1															
	1022-1600	Bridge C5 - Stitching between Pier 32 and 33	3	28-Dec-15	30-Dec-15	17-Jun-16	20-Jun-16	140		Bridge C5 - Stitching between Pier 32 and 33															
	1022-1700	Bridge C5 - Stitching between Pier 33 and 34	3	08-Jan-16	11-Jan-16	08-Jan-16	11-Jan-16	0		Bridge C5 - Stitching between Pier 33 and 34															
	1022-1760	Bridge C5 - Stitching between Pier 34 and D12	3	16-Jan-16	19-Jan-16	21-Jun-16	23-Jun-16	127		Bridge C5 - Stitching between Pier 34 and D12															
	1022-1780	Bridge C5 - External Stressing	7	16-Jan-16	23-Jan-16	21-Jun-16	28-Jun-16	127		Bridge C5 - External Stressing															
	Bridge F1C																								
1022-1840	Bridge F1C - Erect Pier Segment at Pier 36 (1 nos) > by LG1	1	16-Jan-16	16-Jan-16	02-Feb-16	02-Feb-16	14		Bridge F1C - Erect Pier Segment at Pier 36 (1 nos) > by LG1																
	1022-1860	Bridge F1C- Erect T-span at Pier 36 (12 nos) > by LG1	11	18-Jan-16	29-Jan-16	03-Feb-16	18-Feb-16	14		Bridge F1C- Erect T-span at Pier 36 (12 nos) > by LG1															
10.3 - Middle Bridge (Bridge F)																									
10.3.1 - Pier Construction																									
Abutment D12																									
1031-1920	Complete ABUT D12 at Middle Bridge	45	21-Nov-15	14-Jan-16	30-Nov-15	22-Jan-16	7		Complete ABUT D12 at Middle Bridge																
10.5 - Temporary Bridge																									
10.5.1 - Temporary Bridge 'TA'																									
1051-3270	Demolition TA2 (Prepation and Mobilization) - TA28-27	7	27-Nov-15	04-Dec-15	28-Nov-15	05-Dec-15	1		Demolition TA2 (Prepation and Mobilization) - TA28-27																
1051-3280	Demolition TA2 (Removal of Bridge Deck) - TA28-27	6	05-Dec-15	11-Dec-15	27-Jan-16	02-Feb-16	43		Demolition TA2 (Removal of Bridge Deck) - TA28-27																
1051-3290	Demolition TA2 (Removal of Pier 28)	5	12-Dec-15	17-Dec-15	03-Feb-16	11-Feb-16	43		Demolition TA2 (Removal of Pier 28)																
1051-3300	Demolition TA2 (Prepation and Mobilization) - TA27-26	7	04-Dec-15	11-Dec-15	05-Dec-15	12-Dec-15	1		Demolition TA2 (Prepation and Mobilization) - TA27-26																
1051-3310	Demolition TA2 (Removal of Bridge Deck) - TA27-26	6	11-Dec-15	17-Dec-15	12-Dec-15	18-Dec-15	1		Demolition TA2 (Removal of Bridge Deck) - TA27-26																
1051-3320	Demolition TA2 (Removal of Pier 27)	5	18-Dec-15	23-Dec-15	19-Dec-15	24-Dec-15	1		Demolition TA2 (Removal of Pier 27)																
1051-3380	Demolition TA2 (Prepation and Mobilization) - TA24-23	7	27-Nov-15	04-Dec-15	01-Dec-15	08-Dec-15	3		Demolition TA2 (Prepation and Mobilization) - TA24-23																
1051-3390	Demolition TA2 (Removal of Bridge Deck) - TA24-23	6	04-Dec-15	10-Dec-15	08-Dec-15	14-Dec-15	3		Demolition TA2 (Removal of Bridge Deck) - TA24-23																
1051-3400	Demolition TA2 (Prepation and Mobilization) - TA23-21	7	02-Dec-15	09-Dec-15	05-Dec-15	12-Dec-15	3		Demolition TA2 (Prepation and Mobilization) - TA23-21																
1051-3410	Demolition TA2 (Removal of Bridge Deck) - TA23-21	6	11-Dec-15	17-Dec-15	15-Dec-15	21-Dec-15	3		Demolition TA2 (Removal of Bridge Deck) - TA23-21																
1051-3420	Demolition TA2 (Removal of Pier 22 & 21)	8	18-Dec-15	28-Dec-15	22-Dec-15	31-Dec-15	3		Demolition TA2 (Removal of Pier 22 & 21)																
1051-3470	Demolition TA2 (Removal of Pier 23)	3	28-Dec-15	30-Dec-15	18-Jan-16	20-Jan-16	17		Demolition TA2 (Removal of Pier 23)																

- Remaining Level of Effort
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

Contract HY/2009/19

Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

Activity ID	Activity Name	Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016				
								October			November				December					January				
								11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	
1051-3480	Demolition TA2 (Prepation and Mobilization) - TA24-25	6	07-Dec-15	12-Dec-15	16-Dec-15	22-Dec-15	8																	
1051-3490	Demolition TA2 (Removal of Bridge Deck) - TA24-25	8	14-Dec-15	22-Dec-15	05-Jan-16	13-Jan-16	17																	
1051-3500	Demolition TA2 (Removal of Pier 24)	3	23-Dec-15	26-Dec-15	14-Jan-16	16-Jan-16	17																	
1051-3501	Demolition TA2 (Prepation and Mobilization) - TA25-26	6	14-Dec-15	19-Dec-15	23-Dec-15	30-Dec-15	8																	
1051-3502	Demolition TA2 (Removal of Bridge Deck) - TA25-26	8	21-Dec-15	30-Dec-15	31-Dec-15	09-Jan-16	8																	
1051-3503	Demolition TA2 (Removal of Pier 25&26)	3	31-Dec-15	04-Jan-16	11-Jan-16	13-Jan-16	8																	
10.6 - Tunnel Approach Ramp																								
10.6.1 - Approach Ramp (Excluding Portion IIB)																								
Bored Piles																								
1061-1120	Bored Piles Testing Approach Ramp (112 nos)	80	20-Oct-15	23-Jan-16	07-May-16	10-Aug-16	163																	
1061-3980	Pre Bored H-Pile > Pile Ramp - BN14 A	10	20-Oct-15	31-Oct-15	16-Mar-16	29-Mar-16	121																	
1061-4000	Pre Bored H-Pile > Pile Ramp - BN14 B	14	26-Oct-15	10-Nov-15	21-Mar-16	08-Apr-16	121																	
1061-4020	Pre Bored H-Pile > Pile Ramp - BN15 A	14	11-Nov-15	26-Nov-15	09-Apr-16	25-Apr-16	121																	
1061-4040	Pre Bored H-Pile > Pile Ramp - BN15 B	14	16-Nov-15	01-Dec-15	14-Apr-16	29-Apr-16	121																	
1061-4060	Pre Bored H-Pile > Pile Ramp - BN16 A	14	20-Nov-15	05-Dec-15	19-Apr-16	04-May-16	121																	
1061-4080	Pre Bored H-Pile > Pile Ramp - BN16 B	14	25-Nov-15	10-Dec-15	23-Apr-16	09-May-16	121																	
1061-4100	Pre Bored H-Pile > Pile Ramp - BM07 A	14	30-Nov-15	15-Dec-15	28-Apr-16	13-May-16	121																	
1061-4120	Pre Bored H-Pile > Pile Ramp - BM07 B	14	04-Dec-15	19-Dec-15	03-May-16	18-May-16	121																	
1061-4140	Pre Bored H-Pile > Pile Ramp - BM08 A	14	09-Dec-15	24-Dec-15	07-May-16	23-May-16	121																	
1061-4160	Pre Bored H-Pile > Pile Ramp - BM08 B	14	14-Dec-15	30-Dec-15	12-May-16	27-May-16	121																	
1061-4180	Pre Bored H-Pile > Pile Ramp - BM06 A	14	18-Dec-15	05-Jan-16	17-May-16	01-Jun-16	121																	
1061-4200	Pre Bored H-Pile > Pile Ramp - BM06 B	14	23-Dec-15	09-Jan-16	21-May-16	06-Jun-16	121																	
1061-4220	Pre Bored H-Pile > Pile Ramp - BM05 A	14	29-Dec-15	14-Jan-16	26-May-16	11-Jun-16	121																	
1061-4240	Pre Bored H-Pile > Pile Ramp - BM05 B	14	04-Jan-16	19-Jan-16	31-May-16	16-Jun-16	121																	
1061-4260	Pre Bored H-Pile > Pile Ramp - BM04 A	14	08-Jan-16	23-Jan-16	04-Jun-16	21-Jun-16	121																	
1061-4280	Pre Bored H-Pile > Pile Ramp - BM04 B	14	13-Jan-16	28-Jan-16	10-Jun-16	25-Jun-16	121																	
ELS																								
1061-1200	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D10-D09 Northern Side	14	16-Nov-15	01-Dec-15	08-Apr-16	23-Apr-16	116																	
1061-1220	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D09-D08 Northern Side	14	02-Dec-15	17-Dec-15	15-Jun-16	30-Jun-16	159																	
1061-1240	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D08-D07 Northern Side	14	18-Dec-15	05-Jan-16	02-Jul-16	18-Jul-16	159																	
1061-1260	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D07 Cross Sectional Side	14	06-Jan-16	21-Jan-16	18-Jul-16	03-Aug-16	159																	
1061-1320	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D10-D09 Cross Sectional Side	14	16-Nov-15	01-Dec-15	28-May-16	14-Jun-16	159																	
1061-1340	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D10-D09 Southern Side	14	02-Dec-15	17-Dec-15	15-Jun-16	30-Jun-16	159																	
1061-1360	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D09-D08 Southern Side	14	18-Dec-15	05-Jan-16	02-Jul-16	18-Jul-16	159																	
1061-1380	Drive Sheet Pile for Trough A (excl IIB) - Appr. Ramp > Pier D08-D07 Southern Side	14	06-Jan-16	21-Jan-16	18-Jul-16	03-Aug-16	159																	
1061-1390	Install H-Pile King Post	14	16-Nov-15	01-Dec-15	08-Apr-16	23-Apr-16	116																	
1061-1400	Install & Operate Dewatering System (excl IIB) - Appr. Ramp > Pier D07-D08	7	02-Dec-15	09-Dec-15	25-Apr-16	02-May-16	116																	
1061-1420	Install & Operate Dewatering System (excl IIB) - Appr. Ramp > Pier D08-D09	7	10-Dec-15	17-Dec-15	03-May-16	10-May-16	116																	
1061-1440	Install & Operate Dewatering System (excl IIB) - Appr. Ramp > Pier D09-D10	7	18-Dec-15	26-Dec-15	11-May-16	18-May-16	116																	
1061-1460	Excavate Trough A (Level 1) > BN/BS18 - BN/BS25	17	15-Dec-15	05-Jan-16	07-May-16	26-May-16	116																	
1061-1470	Install Strut & Waling Supporty (First layer) > BN/BS18 - BN/BS25	18	06-Jan-16	26-Jan-16	27-May-16	17-Jun-16	116																	
1061-1530	Excavate Trough A (Level 1) > BN/BS25 - BN/BS30	17	06-Jan-16	25-Jan-16	25-Jun-16	15-Jul-16	140																	
10.7 - Section X - Miscellaneous Works																								

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Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

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Activity ID	Activity Name	emainir Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2015												2016			
								October			November				December					January			
								11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24
10.7.1 - TTM Stages																							
1071-1240	TTM Stage 5 - TMLG Consultation and Endorsement	37	20-Oct-15	25-Nov-15	21-Oct-15	26-Nov-15	1	TTM Stage 5 - TMLG Consultation and Endorsement															
1071-1260	TTM Stage 5 - TTM Enabling Works	1	26-Nov-15	26-Nov-15	27-Nov-15	27-Nov-15	1	TTM Stage 5 - TTM Enabling Works															
1071-1280	TTM Stage 5 - Hing Fat Slip Road Divert 1 Lane through 'Bridge From Pier E4 to Pier E2' to Release "TA2"	0		26-Nov-15		27-Nov-15	1	TTM Stage 5 - Hing Fat Slip Road Divert 1 Lane through 'Bridge From Pier E4 to Pier															
11 - SECTION 11 OF THE WORKS																							
11.2 - Roadworks																							
1110-2710	Watermains at Portion XIIA - Stage 3 (parking Meters)	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		- Stage 3 (parking Meters)															
1110-2720	Watermains at Portion XIIA - Stage 4 (parking Meters)	0	20-Oct-15	20-Oct-15	16-Nov-15	16-Nov-15		ains at Portion XIIA - Stage 4 (parking Meters)															
1110-2730	Watermains at Portion XIIA - Stage 5 (parking Meters)	3	20-Oct-15	23-Oct-15	16-Nov-15	18-Nov-15	22	Watermains at Portion XIIA - Stage 5 (parking Meters)															
1110-2740	Watermains at Portion XIIA - Stage 6 (King Ming Rd. junction)	0	20-Oct-15	20-Oct-15	17-Nov-15	17-Nov-15		ortion XIIA - Stage 6 (King Ming Rd. junction)															
1110-2750	Watermains at Portion XIIA - Stage 7 (King Ming Rd. junction & connection pt.)	0	20-Oct-15	20-Oct-15	17-Nov-15	17-Nov-15		Watermains at Portion XIIA - Stage 7 (King Ming Rd. junction & connection pt.)															
1110-2760	Watermains at Portion XIIA - Stage 8 (Run-in/out to carpark at Victoria Ctr.)	2	22-Oct-15	23-Oct-15	17-Nov-15	18-Nov-15	22	Watermains at Portion XIIA - Stage 8 (Run-in/out to carpark at Victoria Ctr.)															
1110-2770	Watermains at Portion XIIA - Stage 9 (Run-in/out to carpark at Victoria Ctr.)	13	24-Oct-15	07-Nov-15	19-Nov-15	03-Dec-15	22	Watermains at Portion XIIA - Stage 9 (Run-in/out to carpark at Victoria Ctr.)															
1110-2780	Watermains at Portion XIIA - Stage 10 (motor cycle parking)	13	24-Oct-15	07-Nov-15	19-Nov-15	03-Dec-15	22	Watermains at Portion XIIA - Stage 10 (motor cycle parking)															
1110-2790	Watermains at Portion XIIA - Stage 11 (motor cycle parking)	12	09-Nov-15	21-Nov-15	04-Dec-15	17-Dec-15	22	Watermains at Portion XIIA - Stage 11 (motor cycle parking)															
1110-2800	Watermains at Portion XIIA - Testing & commissioning of Watermains	4	23-Nov-15	26-Nov-15	18-Dec-15	22-Dec-15	22	Watermains at Portion XIIA - Testing & commissioning of Watermains															
1110-2810	Watermains at Portion XIIA - Reinstatement of Pavement at connection Pt.	4	27-Nov-15	01-Dec-15	23-Dec-15	28-Dec-15	22	Watermains at Portion XIIA - Reinstatement of Pavement at connection Pt.															

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Three Months Rolling Programme (20 Oct 2015 to 19 Jan 2016)

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WP13-0

Layout: CWB - Working Layout for DWP Rev M

Date Printed 26-Sep-14 11

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
HY/2009/15 - Works Programme Rev. M (DD:20-Sep-12)														
Works in East Ventilation Adit - Based on Alternative Method														
Reinstatement of Breakwater														
S3_54840	Reinstatement works -west side	7d/wk-1	60d	21-Feb-14 08 A	30-Sep-14 18	-85d		Reinstatement works -west side						
S3_60085	Reinstatement works east side	7d/wk-1	60d	31-May-14 08 A	30-Sep-14 18	-85d		Reinstatement works east side						
S3_54845	Completion of Section 3 (KD8) in EVA Area (Alternative Method)	7d/wk-2	0d		30-Sep-14 18	-86d		Completion of Section 3 (KD8) in EVA Area (Alternative Method)						
Works in TS1/TS2 - OHVD and Cable Trough/Maintenance Walkway														
TS2 - OHVD and Cable Trough/Maintenance Walkway														
OHVD Slab and Cable Trough Construction														
S3_6210	TS2 - OHVD/ Cable trough	7d/wk-1	40d	20-May-14 08 A	30-Sep-14 18	-85d		TS2 - OHVD/ Cable trough						
S3_6212	Completion of Section 3 - TS1/TS2 Area (below -6mpd) KD8	7d/wk-2	0d		30-Sep-14 18	-86d		Completion of Section 3 - TS1/TS2 Area (below -6mpd) KD8						
Works in TS4/ME4 Area (Portion 14A, 14B, 15, 23)														
TS4/ME4 - Removal of Temporary Reclamation														
Remaining Works at TZ6														
Stage 4 - Seawall and Reclamation at TZ6														
A-2010	Installation of seawall blocks (Qty: 245 nos.)	7d/wk-2	6d	15-Sep-14 08 A	26-Sep-14 18	-332d		Installation of seawall blocks (Qty: 245 nos.)						
A-2020	Soil Backfilling up to -2.45mPD (Qty:3,000 cu.m.)	7d/wk-2	2d	25-Sep-14 08	26-Sep-14 18	-332d		Soil Backfilling up to -2.45mPD (Qty:3,000 cu.m.)						
A-2030	Utilities installation for Mined Tunnel	7d/wk-2	1d	27-Sep-14 08	27-Sep-14 18	-332d		Utilities installation for Mined Tunnel						
A-2040	Soil backfilling up to ground level (Qty:2,000 cu.m.)	7d/wk-2	2d	28-Sep-14 08	29-Sep-14 18	-332d		Soil backfilling up to ground level (Qty:2,000 cu.m.)						
A-2050	Site clearance	7d/wk-2	1d	30-Sep-14 08	30-Sep-14 18	-305d		Site clearance						
A-2060	Handover to MTR	7d/wk-2	0d		30-Sep-14 18	-305d		Handover to MTR						
Removal of Temporary Reclamation at TS4/ME4														
Stage 5 (Zones A, D & F - TS4-D33 to D-26, SCL2 & ME4-D19 to D13)														
A-3000	D-Wall horizontal cutting (Qty: 62 pcs.)	7d/wk-2	21d	29-Aug-14 08 A	23-Sep-14 18	-340d		D-Wall horizontal cutting (Qty: 62 pcs.)						
Stage 6 (Zone C - P4, ME4-D12 to ME4-D18 & P3)														
A-3011	Marine removal of temporary reclamation and seawall blocks (Zones C)	7d/wk-2	21d	31-Aug-14 08 A	02-Oct-14 18	-353d		Marine removal of temporary reclamation and seawall blocks (Zones C)						
A-3030	D-Wall vertical cutting (Qty: 15 pcs.)	7d/wk-2	4d	03-Oct-14 08	06-Oct-14 18	-353d		D-Wall vertical cutting (Qty: 15 pcs.)						
A-3040	D-Wall horizontal cutting (Qty: 20 pcs.)	7d/wk-2	5d	06-Oct-14 08	10-Oct-14 18	-352d		D-Wall horizontal cutting (Qty: 20 pcs.)						

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)
























WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float									
							2015			2016					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Stage 7 (Zones C & E - ME4-D06 to D01, SCL1 & TS4-D25)															
A-4000	Marine removal of temporary reclamation and seawall blocks (Zones C & E)	7d/wk-2	18d	06-Sep-14 08 A	06-Oct-14 18	-353d		Marine removal of temporary reclamation and seawall blocks (Zones C & E)							
A-3090	Hole coring (Qty: 44 nos)	7d/wk-2	9d	20-Sep-14 08*	28-Sep-14 18	-346d		Hole coring (Qty: 44 nos)							
A-4010	D-Wall vertical cutting (Qty: 27pcs.)	7d/wk-2	7d	07-Oct-14 08	13-Oct-14 18	-353d		D-Wall vertical cutting (Qty: 27pcs.)							
A-4020	D-Wall horizontal cutting (Qty: 37 pcs.)	7d/wk-2	10d	11-Oct-14 08	20-Oct-14 18	-353d		D-Wall horizontal cutting (Qty: 37 pcs.)							
Stage 9 (Zone I - TS4-D01 to TS4-D08)															
A-3050	Remaining removal of temporary reclamation (Zone I)	7d/wk-2	28d	29-Aug-14 08 A	01-Oct-14 18	-342d		Remaining removal of temporary reclamation (Zone I)							
A-3060	Hole coring (Qty: 25 nos)	7d/wk-2	5d	02-Oct-14 08	06-Oct-14 18	-342d		Hole coring (Qty: 25 nos)							
A-3070	D-Wall vertical cutting (Qty: 14 pcs.)	7d/wk-2	3d	07-Oct-14 08	09-Oct-14 18	-342d		D-Wall vertical cutting (Qty: 14 pcs.)							
A-3080	D-Wall horizontal cutting (Qty: 24 pcs.)	7d/wk-2	5d	21-Oct-14 08	25-Oct-14 18	-353d		D-Wall horizontal cutting (Qty: 24 pcs.)							
Stage 8 (Zones G & K - TS4-D24 to TS4-D15)															
A-4040	Relocation of RHKYC floating pontoon	7d/wk-2	5d	22-Sep-14 08*	26-Sep-14 18	-338d		Relocation of RHKYC floating pontoon							
A-4050	Hole coring (Qty: 27 nos)	7d/wk-2	6d	29-Sep-14 08	04-Oct-14 18	-346d		Hole coring (Qty: 27 nos)							
A-4060	Marine removal of temporary reclamation and seawall blocks (Zone G & K)	7d/wk-2	14d	11-Oct-14 08	24-Oct-14 18	-352d		Marine removal of temporary reclamation and seawall blocks (Zone G & K)							
A-4070	D-Wall vertical cutting (Qty: 18pcs.)	7d/wk-2	4d	25-Oct-14 08	28-Oct-14 18	-352d		D-Wall vertical cutting (Qty: 18pcs.)							
A-4080	D-Wall horizontal cutting (Qty: 25 pcs.)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-352d		D-Wall horizontal cutting (Qty: 25 pcs.)							
Stage 10 (Zone J - TS4-D09 to TS4-D14)															
A-4090	Land removal of temporary reclamation (Zone J)	7d/wk-2	10d	07-Oct-14 08	16-Oct-14 18	-344d		Land removal of temporary reclamation (Zone J)							
A-5000	Hole coring (Qty: 32 nos)	7d/wk-2	7d	17-Oct-14 08	23-Oct-14 18	-340d		Hole coring (Qty: 32 nos)							
A-5010	Marine removal of temporary reclamation (Zone J)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-353d		Marine removal of temporary reclamation (Zone J)							
A-5020	D-Wall vertical cutting (Qty: 20 pcs.)	7d/wk-2	5d	02-Nov-14 08	06-Nov-14 18	-353d		D-Wall vertical cutting (Qty: 20 pcs.)							
A-5030	D-Wall horizontal cutting (Qty: 26 pcs.)	7d/wk-2	7d	04-Nov-14 08	10-Nov-14 18*	-353d		D-Wall horizontal cutting (Qty: 26 pcs.)							
Stage 13 - Phase 3 Mooring															
A-5050	Final trimming of sea bed level	7d/wk-2	4d	02-Nov-14 08	05-Nov-14 18	-347d		Final trimming of sea bed level							
A-5060	Phase 3 Mooring	7d/wk-2	6d	06-Nov-14 08	11-Nov-14 18	-347d		Phase 3 Mooring							
A-5040	Reinstatement of existing seawall (Zones I & J)	7d/wk-2	7d	11-Nov-14 08	17-Nov-14 18	-353d		Reinstatement of existing seawall (Zones I & J)							
Stage 12 - Re-provisioning of Jetty															
S6_5258	Provision of Mobile Crane (until permanent re-provision of Jetty is completed)	7d/wk-1	160d	20-Feb-14 08 A	30-Dec-14 18	-335d		Provision of Mobile Crane (until permanent re-provision of Jetty is completed)							
A-6010	BA8 submission and consent for commencement of superstructure	7d/wk-2	28d	20-Sep-14 08 A	16-Oct-14 18	-336d		BA8 submission and consent for commencement of superstructure							

-  Summary Bar
-  Actual Level of Effort
-  Actual Work
-  Remaining Work
-  Critical Remaining Work
-  Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

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26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015							2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
A-8012	Submission of performance report	7d/wk-2	1d	25-Oct-14 08*	25-Oct-14 18	-286d										
A-8020	Erection of working platform for jetty beams and reinstate the floating portoon	7d/wk-2	10d	02-Nov-14 08	11-Nov-14 18	-352d										
A-8040	BA10 submission for authorized signatory and subcontractor	7d/wk-2	1d	12-Nov-14 08	12-Nov-14 18	-304d										
A-8030	Jetty beams construction	7d/wk-2	14d	12-Nov-14 08	25-Nov-14 18	-352d										
A-8052	Construction of floating pontoon	7d/wk-2	14d	26-Nov-14 08	09-Dec-14 18	-331d										
A-8050	BA13 submission + 14-day cube test results	7d/wk-2	28d	26-Nov-14 08	23-Dec-14 18	-352d										
A-8060	E&M and accessories installation	7d/wk-2	7d	24-Dec-14 08	30-Dec-14 18	-352d										
A-8070	Handover to RHKYC	7d/wk-2	1d	31-Dec-14 08	31-Dec-14 18	-352d										
Stage 11 - Construction of TZ4																
A-8080	South side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	24-Sep-14 08	05-Oct-14 18	-339d										
A-8090	South side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	06-Oct-14 08	11-Oct-14 18	-339d										
A-7000	South side - general fill (Qty: 2,000 cu.m.)	7d/wk-2	2d	12-Oct-14 08	13-Oct-14 18	-339d										
A-7010	North side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	21-Oct-14 08	01-Nov-14 18	-346d										
A-7020	North side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	02-Nov-14 08	07-Nov-14 18	-346d										
A-7030	North side - general fill (Qty: 2,000 cu.m.)	7d/wk-2	2d	08-Nov-14 08	09-Nov-14 18	-346d										
A-7040	Handover to contract TS3/SR8	7d/wk-2	1d	10-Nov-14 08	10-Nov-14 18*	-346d										
TS4/ME4, Removal of Temporary Reclamation																
S26875	Completion of Section 2 (With ME4 option) (KD7)	7d/wk-2	0d		17-Nov-14 18	-353d										
S26890	Completion of Section 7B (ME4) (KD13)	7d/wk-2	0d		17-Nov-14 18	-353d										
TS4 - OHVD / Cable Trough																
S5_6185	TS4 (incl. TS4+) - OHVD Slab - Area C (access through temp. opening at TZ4)	7d/wk-1	36d	02-Jan-15 08*	06-Feb-15 18	195d										
S5_6190	TS4 (incl. TS4+) - Cable Trough (access through temp. opening at TZ4)	7d/wk-1	60d	07-Feb-15 08*	14-Apr-15 18	195d										
S5_59850	Completion of Section 5 - TS4/ME4 Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d										
Works in TPCWAE Area (Portion 20A, 20B)																
Removal of Temporary Reclamation																
Removal of Temporary Reclamation & Form TZ5																
S87670	Remove general fill /sea wall block	7d/wk-1	24d	20-May-14 08 A	08-Oct-14 18	-296d										
S87675	Diaphragm wall saw cutting (1st D Wall cut on 23 Jun 2014)	7d/wk-1	31d	03-Sep-14 08 A	16-Oct-14 18	-306d										
S87755	Form TZ5	7d/wk-1	18d	25-Sep-14 08	14-Oct-14 18	-304d										

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date

Revision

Checked

Approved

26-Sep...

1st submission

中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015									2016				
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3						
S67685	Achievement of KD5	7d/wk-2	0d		16-Oct-14 18	-323d		◆ Achievement of KD5												
S67687	Complete Reinstatement of Vertical Seawall (near PRE Office)	7d/wk-2	0d		27-Oct-14 18	-322d		◆ Complete Reinstatement of Vertical Seawall (near PRE Office)												
Reinstate Mucking Out Access Shaft "C"																				
S67240	Start reinstatement works (after completion of TPCWAW OHVD works)	6d/wk	0d	26-Mar-16 08		-102d											◆ Start reinstatement works (after c			
S67225	Cast slab opening at top of CCT West bound (access shaft)	6d/wk	18d	28-Mar-16 08	16-Apr-16 18	-102d											■ Cast slab opening at top of			
S67230	Removal of vertical shaft and backfilling	6d/wk	48d	11-Apr-16 08	04-Jun-16 18	-102d											■ Removal of vertical			
S67235	Reinstatement of pavement	6d/wk	12d	30-May-16 08	11-Jun-16 18	-102d											■ Reinstatement of			
TPCWAE - OHVD / Cable Trough																				
S5_7405	TPCWAE - Cable Trough (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d											■ TPCWAE - Cable Trough (access through temp. opening at T			
S5_7400	TPCWAE - OHVD Slab AT Area A (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d											■ TPCWAE - OHVD Slab AT Area A (access through temp. open			
S5_59840	Completion of Section 5 - TPCWAE Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d											◆ Completion of Section 5 - TPCWAE Area (KD10), below -20m			
Works in TPCWAW Area																				
TPCWAW - Temporary Reclamation																				
Temporary Reclamation -																				
S6_9440	TPCWAW - place levelling stone and tamping, South side	7d/wk-1	6d	15-Oct-14 08	20-Oct-14 18	-122d		■ TPCWAW - place levelling stone and tamping, South side												
S6_9450	TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-122d		■ TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)												
S6_9465	TPCWAW - place levelling stone and tamping, North side	7d/wk-1	6d	02-Nov-14 08	07-Nov-14 18	-122d		■ TPCWAW - place levelling stone and tamping, North side												
S6_9470	TPCWAW - place seawall blocks to +4 North side (Qty: 672 nos @ 50 nos/day)	7d/wk-1	14d	08-Nov-14 08	21-Nov-14 18	-122d		■ TPCWAW - place seawall blocks to +4 North side (Qty: 672 nos @ 50 nos/day)												
S6_9495	TPCWAW - General fill to +2 within the seawall	7d/wk-1	17d	15-Nov-14 08	01-Dec-14 18	-122d		■ TPCWAW - General fill to +2 within the seawall												
S6_9490	TPCWAW - place seawall blocks to +4 at the temporary opening	7d/wk-1	7d	02-Dec-14 08	08-Dec-14 18	-122d		■ TPCWAW - place seawall blocks to +4 at the temporary opening												
S6_9475	TPCWAW - Remaining General fill to +4 within the seawall	7d/wk-1	10d	09-Dec-14 08	18-Dec-14 18	-122d		■ TPCWAW - Remaining General fill to +4 within the seawall												
TPCWAW - Diaphragm Wall																				
Diaphragm Wall																				
S6_9385	Site investigation	7d/wk-1	49d	01-Dec-14 08	21-Jan-15 18	-113d		■ Site investigation												
S6_8960	Install guide wall	7d/wk-1	40d	17-Dec-14 08	28-Jan-15 18	-120d		■ Install guide wall												
S6_8955	Curtain grout along proposed diaphragm wall	7d/wk-1	40d	19-Dec-14 08	30-Jan-15 18	-122d		■ Curtain grout along proposed diaphragm wall												
S6_9382	Set up bentonite silo/plants and equipments	7d/wk-1	30d	19-Dec-14 08	20-Jan-15 18	-112d		■ Set up bentonite silo/plants and equipments												
S6_9345	Diaphragm wall construction (34 panels @ 3 panels/ week)	7d/wk-1	68d	30-Jan-15 08	14-Apr-15 18	-141d		■ Diaphragm wall construction (34 panels @ 3 panels/ week)												
S6_9350	Install shear pins on diaphragm wall	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d		■ Install shear pins on diaphragm wall												
<div><div><div>Summary Bar</div><div>Actual Level of Effort</div><div>Actual Work</div><div>Remaining Work</div><div>Critical Remaining Work</div><div>◆ Milestone</div></div></div>							4 of 18							China State Construction Engineering (Hong Kong) Ltd						
							Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)							WORKS PROGRAMME REV. M						
							Prepared by William Caluza													
							Date Revision Checked Approved													
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Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float									
							2015			2016					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
S6_9355	Install king posts	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d			Install king posts						
S6_8970	Diaphragm Wall Pile test	7d/wk-1	40d	20-Mar-15 08	03-May-15 18	-129d			Diaphragm Wall Pile test						
S6_9375	Carry out contact/fissure grouting	7d/wk-1	29d	21-Mar-15 08	22-Apr-15 18	-141d			Carry out contact/fissure grouting						
TPCWAW- ELS Works															
ELS Works															
S6_9360	Install dewatering wells and piezometers	7d/wk-1	20d	30-Mar-15 08	22-Apr-15 18	-141d			Install dewatering wells and piezometers						
S6_9365	Install inclinometers inside D-wall	7d/wk-1	20d	15-Apr-15 08	05-May-15 18	-141d			Install inclinometers inside D-wall						
S6_8975	Carry out pumping tests	7d/wk-1	12d	23-Apr-15 08	05-May-15 18	-141d			Carry out pumping tests						
S6_8980	1st Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	06-May-15 08	15-May-15 18	-141d			1st Layer - D Wall conc over break if any & Soft Excavation						
S6_9260	Submit pumping test report	7d/wk-1	1d	06-May-15 08	06-May-15 18	-137d			Submit pumping test report						
S6_8985	1st Layer - install lateral support	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			1st Layer - install lateral support						
S6_8990	Install vibrating wire strain gauge	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			Install vibrating wire strain gauge						
S6_8995	2nd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	18-May-15 08	28-May-15 18	-141d			2nd Layer - D Wall conc over break if any & Soft Excavation						
S6_9000	2nd Layer - install lateral support	7d/wk-1	10d	29-May-15 08	07-Jun-15 18	-141d			2nd Layer - install lateral support						
S6_9005	3rd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	31-May-15 08	09-Jun-15 18	-141d			3rd Layer - D Wall conc over break if any & Soft Excavation						
S6_9010	3rd Layer - install lateral support	7d/wk-1	10d	10-Jun-15 08	19-Jun-15 18	-141d			3rd Layer - install lateral support						
S6_9015	4th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	12-Jun-15 08	22-Jun-15 18	-141d			4th Layer - D Wall conc over break if any & Soft Excavation						
S6_9020	4th Layer - install lateral support	7d/wk-1	10d	23-Jun-15 08	03-Jul-15 18	-141d			4th Layer - install lateral support						
S6_9025	5th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	25-Jun-15 08	05-Jul-15 18	-141d			5th Layer - D Wall conc over break if any & Soft Excavation						
S6_9030	5th Layer - install lateral support	7d/wk-1	10d	27-Jun-15 08	07-Jul-15 18	-141d			5th Layer - install lateral support						
S6_9035	6th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	08-Jul-15 08	17-Jul-15 18	-141d			6th Layer - D Wall conc over break if any & Soft Excavation						
S6_9040	6th Layer - install lateral support	7d/wk-1	10d	18-Jul-15 08	27-Jul-15 18	-69d			6th Layer - install lateral support						
TPCWAW - ROCK EXCAVATION															
S6_6180	Rock excavation to formation	7d/wk-1	112d	18-Jul-15 08	09-Nov-15 18	-141d			Rock excavation to formation						
S6_9370	Install tie back anchor to D- Walls (area on west side, near Portion 11)	7d/wk-1	25d	20-Jul-15 08	13-Aug-15 18	-69d			Install tie back anchor to D- Walls (area on west side, near Portion 11)						
S6_9415	Install tie back anchor to D- Walls (east area)	7d/wk-1	20d	20-Jul-15 08	08-Aug-15 18	-69d			Install tie back anchor to D- Walls (east area)						
S6_9055	Provide Access to WDII Contractor for demolition of bulkhead at Portion 11	7d/wk-2	0d		10-Nov-15 18	-133d			Provide Access to WDII Contractor for demolition of bulkhead						
TPCWAW- CCT RC Structure															
TPCWAW - CCT / OHVD															

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S6_9070	TPCWAW Construct tunnel base slab	7d/wk-1	50d	23-Oct-15 08	11-Dec-15 18	-141d																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza			
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26-Sep-15	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A8705	SR8 Bench Excavation From West, CH 4065- 4075 = 10m	7d/wk-1a	20d	25-Sep-14 08	15-Oct-14 18	148d	■ SR8 Bench Excavation From West, CH 4065- 4075 = 10m							
A8685	SR8 Bench Excavation From West, CH 4075- 4085 = 10m	7d/wk-1a	20d	16-Oct-14 08	04-Nov-14 18	148d	■ SR8 Bench Excavation From West, CH 4075- 4085 = 10m							
A8680	SR8 Bench Excavation From West, CH 4085- 4095 = 10m	7d/wk-1a	20d	05-Nov-14 08	24-Nov-14 18	148d	■ SR8 Bench Excavation From West, CH 4085- 4095 = 10m							
A8725	SR8 Bench Excavation From West, CH 4095- 4100 = 5m	7d/wk-1a	10d	25-Nov-14 08	04-Dec-14 18	148d	■ SR8 Bench Excavation From West, CH 4095- 4100 = 5m							
From East (TS4)														
Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)														
A8495	SR8 Heading Excavation From East CH 4115- 4107 = 8m @2d/m	7d/wk-1a	16d	15-Sep-14 08 A	28-Sep-14 18	10d	■ SR8 Heading Excavation From East CH 4115- 4107 = 8m @2d/m							
Bench Excavation (1.5d/m, 20m separation with heading)														
A8455	SR8 Bench Excavation From East, CH 4147.5- 4135 = 12.5m	7d/wk-1a	19d	20-Sep-14 08	09-Oct-14 18	0d	■ SR8 Bench Excavation From East, CH 4147.5- 4135 = 12.5m							
A8470	SR8 Bench Excavation From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	10-Oct-14 08	24-Oct-14 18	0d	■ SR8 Bench Excavation From East, CH 4135- 4125 = 10m							
A8460	SR8 Bench Excavation From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	25-Oct-14 08	08-Nov-14 18	0d	■ SR8 Bench Excavation From East, CH 4125- 4115 = 10m							
A8465	SR8 Bench Excavation From East, CH 4115- 4100 = 15m	7d/wk-1a	23d	09-Nov-14 08	01-Dec-14 18	0d	■ SR8 Bench Excavation From East, CH 4115- 4100 = 15m							
Tunnel Lining Works														
From West - Base Slab (10m/bay, 10m separation with benching excavation)														
A8525	SR8, From West, CH 4015 - 4025 = 10m/bay, base slab	7d/wk-1a	10d	15-Sep-14 08 A	04-Oct-14 18	137d	■ SR8, From West, CH 4015 - 4025 = 10m/bay, base slab							
A8530	SR8, From West, CH 4025 - 4035 = 10m/bay, base slab	7d/wk-1a	10d	05-Oct-14 08	14-Oct-14 18	163d	■ SR8, From West, CH 4025 - 4035 = 10m/bay, base slab							
A8535	SR8, From West, CH 4035 - 4045 = 10m/bay, base slab	7d/wk-1a	8d	15-Oct-14 08	22-Oct-14 18	165d	■ SR8, From West, CH 4035 - 4045 = 10m/bay, base slab							
A8540	SR8, From West, CH 4045 - 4055 = 10m/bay, base slab	7d/wk-1a	8d	23-Oct-14 08	30-Oct-14 18	165d	■ SR8, From West, CH 4045 - 4055 = 10m/bay, base slab							
A8545	SR8, From West, CH 4055 - 4065 = 10m/bay, base slab	7d/wk-1a	8d	05-Nov-14 08	12-Nov-14 18	160d	■ SR8, From West, CH 4055 - 4065 = 10m/bay, base slab							
A8550	SR8, From West, CH 4065 - 4075 = 10m/bay, base slab	7d/wk-1a	8d	25-Nov-14 08	02-Dec-14 18	148d	■ SR8, From West, CH 4065 - 4075 = 10m/bay, base slab							
A8555	SR8, From West, CH 4075 - 4085 = 10m/bay, base slab	7d/wk-1a	8d	05-Dec-14 08	12-Dec-14 18	148d	■ SR8, From West, CH 4075 - 4085 = 10m/bay, base slab							
A8560	SR8, From West, CH 4085 - 4095 = 10m/bay, base slab	7d/wk-1a	8d	13-Dec-14 08	20-Dec-14 18	150d	■ SR8, From West, CH 4085 - 4095 = 10m/bay, base slab							
A8561	SR8, From West, CH 4095 - 4105 = 10m/bay, base slab	7d/wk-1a	8d	21-Dec-14 08	29-Dec-14 18	152d	■ SR8, From West, CH 4095 - 4105 = 10m/bay, base slab							
A8562	SR8, From West, CH 4105 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	30-Dec-14 08	07-Jan-15 18	154d	■ SR8, From West, CH 4105 - 4115 = 10m/bay, base slab							
From West - Lining (5m/bay, 10m separation with base slab)														
A8575	SR8, From West, CH 3995 - 4000 = 1bay, lining	7d/wk-1a	9d	20-Sep-14 08	28-Sep-14 18	0d	■ SR8, From West, CH 3995 - 4000 = 1bay, lining							
A8580	SR8, From West, CH 4000 - 4005 = 1bay, lining	7d/wk-1a	9d	05-Oct-14 08	13-Oct-14 18	137d	■ SR8, From West, CH 4000 - 4005 = 1bay, lining							
A8585	SR8, From West, CH 4005 - 4010 = 1bay, lining	7d/wk-1a	9d	14-Oct-14 08	22-Oct-14 18	137d	■ SR8, From West, CH 4005 - 4010 = 1bay, lining							
A8590	SR8, From West, CH 4010 - 4015 = 1bay, lining	7d/wk-1a	9d	23-Oct-14 08	31-Oct-14 18	137d	■ SR8, From West, CH 4010 - 4015 = 1bay, lining							
<div> <div>Summary Bar</div> <div>Actual Level of Effort</div> <div>Actual Work</div> <div>Remaining Work</div> <div>Critical Remaining Work</div> <div>Milestone</div> </div>							<div> <div>Prepared by William Caluza</div> <div> <div>Date</div> <div>Revision</div> <div>Checked</div> <div>Approved</div> </div> <div>26-Sep-14 1st submission</div> </div> <div> <div>中國建築工程(香港)有限公司</div> <div>CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.</div> </div>							

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A9870	From East, SR8 CH 4130 - 4125 = 1bay, lining	7d/wk-1a	5d	09-Jan-15 08	13-Jan-15 18	6d			■ From East, SR8 CH 4130 - 4125 = 1bay, lining				
A9800	From East, SR8 CH 4125 - 4120 = 1bay, lining	7d/wk-1a	5d	14-Jan-15 08	18-Jan-15 18	143d			■ From East, SR8 CH 4125 - 4120 = 1bay, lining				
A9860	From East, SR8 CH 4120 - 4115 = 1bay, lining	7d/wk-1a	5d	19-Jan-15 08	23-Jan-15 18	143d			■ From East, SR8 CH 4120 - 4115 = 1bay, lining				
A9855	From East, SR8 CH 4115 - 4110 = 1bay, lining	7d/wk-1a	5d	24-Jan-15 08	28-Jan-15 18	143d			■ From East, SR8 CH 4115 - 4110 = 1bay, lining				
A9850	From East, SR8 CH 4110 - 4105 = 1bay, lining	7d/wk-1a	5d	29-Jan-15 08	02-Feb-15 18	143d			■ From East, SR8 CH 4110 - 4105 = 1bay, lining				
OHVD(10m/bay) / Utility Trough													
A8570	SR8 Tunnel OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	09-Feb-15 08	13-Jun-15 18	137d			■ SR8 Tunnel OHVD and utility trough =	167= 17 bays @ 10m/bay @ 7d/bay			
EB Outer Tunnel Excavation													
From West (TPCWAE)													
Outer Bench Excavation (1.5d - 2d/m, 20m separation with heading)													
A9550	EB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	30d	07-Aug-14 08 A	20-Oct-14 18	135d	■		EB, Outer Bench From West, CH 4035- 4045 = 10m				
A9555	EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)	7d/wk-1a	20d	20-Oct-14 08	08-Nov-14 18	135d	■		EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)				
A9560	EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)	7d/wk-1a	20d	09-Nov-14 08	28-Nov-14 18	135d	■		EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)				
A9565	EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)	7d/wk-1a	20d	29-Nov-14 08	18-Dec-14 18	135d	■		EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)				
A9520	EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)	7d/wk-1a	20d	19-Dec-14 08	09-Jan-15 18	135d	■		EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)				
A9545	EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)	7d/wk-1a	15d	10-Jan-15 08	24-Jan-15 18	135d	■		EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)				
From East (TS4)													
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)													
A9605	EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	30d	20-Oct-14 08*	18-Nov-14 18	120d	■		EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m				
A9610	EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	120d	■		EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)				
A9615	EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	120d	■		EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)				
A9620	EB, Outer Bench From East, CH 4125- 4115 = 10m (2d/m)	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	120d	■		EB, Outer Bench From East, CH 4125- 4115 = 10m (2d/m)				
A9625	EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	120d	■		EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)				
A9630	EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	120d	■		EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)				
EB (Inner Tunnel Excavation + Lining)													
From West (TPCWAE)													
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)													
A8805	EB,Inner Heading From West, CH 3992- 4005 = 13m @3d/m	7d/wk-1a	39d	29-Sep-14 08	07-Nov-14 18	0d	■		EB,Inner Heading From West, CH 3992- 4005 = 13m @3d/m				
A8815	EB,Inner Heading From West, CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	08-Nov-14 08	27-Nov-14 18	0d	■		EB,Inner Heading From West, CH 4005- 4015 = 10m @2d/m				

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

9 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

CCE

中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float									
							2015			2016					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
A8820	EB,Inner Heading From West , CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	28-Nov-14 08	17-Dec-14 18	0d		EB,Inner Heading From West , CH 4015- 4025 = 10m @2d/m							
A8780	EB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	18-Dec-14 08	08-Jan-15 18	0d		EB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m							
A8810	EB,Inner Heading From West , CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	09-Jan-15 08	28-Jan-15 18	0d		EB,Inner Heading From West , CH 4035- 4045 = 10m @2d/m							
A8785	EB,Inner Heading From West , CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	29-Jan-15 08	17-Feb-15 18	0d		EB,Inner Heading From West , CH 4045- 4055 = 10m @2d/m							
A8790	EB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	18-Feb-15 08	12-Mar-15 18	0d		EB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m							
A8795	EB,Inner Heading From West , CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	13-Mar-15 08	01-Apr-15 18	0d		EB,Inner Heading From West , CH 4065- 4075 = 10m, @ 2d/m							
A8800	EB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	02-Apr-15 08	22-Apr-15 18	0d		EB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m							
A8825	EB,Inner Heading From West, CH 4085- 4095 = 10m @ 2d/m	7d/wk-1a	20d	23-Apr-15 08	13-May-15 18	0d		EB,Inner Heading From West, CH 4085- 4095 = 10m @ 2d/m							
Inner Bench Excavation (1.5-2d/m, 20m separation with heading)															
A8765	EB, Inner Bench From West, CH 3992- 4005 = 13m (2d/m)	7d/wk-1a	26d	08-Nov-14 08	03-Dec-14 18	23d		EB, Inner Bench From West, CH 3992- 4005 = 13m (2d/m)							
A8770	EB, Inner Bench From West,CH 4005- 4015 = 10m	7d/wk-1a	15d	18-Dec-14 08	03-Jan-15 18	9d		EB, Inner Bench From West,CH 4005- 4015 = 10m							
A8775	EB, Inner Bench From West,CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Jan-15 08	23-Jan-15 18	4d		EB, Inner Bench From West,CH 4015- 4025 = 10m							
A8735	EB, Inner Bench From West,CH 4025- 4035 = 10m	7d/wk-1a	15d	29-Jan-15 08	12-Feb-15 18	14d		EB, Inner Bench From West,CH 4025- 4035 = 10m							
A8740	EB, Inner Bench From West,CH 4035- 4045 = 10m	7d/wk-1a	15d	18-Feb-15 08	07-Mar-15 18	11d		EB, Inner Bench From West,CH 4035- 4045 = 10m							
A8745	EB, Inner Bench From West,CH 4045- 4055 = 10m	7d/wk-1a	15d	13-Mar-15 08	27-Mar-15 18	6d		EB, Inner Bench From West,CH 4045- 4055 = 10m							
A8750	EB, Inner Bench From West,CH 4055- 4065 = 10m	7d/wk-1a	15d	02-Apr-15 08	17-Apr-15 18	1d		EB, Inner Bench From West,CH 4055- 4065 = 10m							
A8755	EB, Inner Bench From West,CH 4065- 4075 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	1d		EB, Inner Bench From West,CH 4065- 4075 = 10m							
A8760	EB, Inner Bench From West,CH 4075- 4085 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d		EB, Inner Bench From West,CH 4075- 4085 = 10m							
A8761	EB, Inner Bench From West,CH 4085- 4095 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d		EB, Inner Bench From West,CH 4085- 4095 = 10m							
From East (TS4)															
Inner Heading Excavation (3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)															
A8835	EB,Inner Heading From East, CH 4147.5 to 4145 = 2.5m, @ 3d/m	7d/wk-1a	8d	06-Jan-15 08	13-Jan-15 18	0d		EB,Inner Heading From East, CH 4147.5 to 4145 = 2.5m, @ 3d/m							
A8850	EB,Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m	7d/wk-1a	30d	14-Jan-15 08	12-Feb-15 18	0d		EB,Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m							
A8830	EB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	13-Feb-15 08	07-Mar-15 18	0d		EB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m							
A8840	EB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	08-Mar-15 08	27-Mar-15 18	0d		EB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m							
A9910	EB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	28-Mar-15 08	17-Apr-15 18	0d		EB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m							
A8845	EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Apr-15 08	08-May-15 18	0d		EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m							
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)															
A8860	EB,Inner Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	4d	08-Mar-15 08	11-Mar-15 18	11d		EB,Inner Bench From East, CH 4147.5 - 4145 = 2.5m							

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A8865	EB, Inner Bench From East, CH 4145- 4135 = 10m	7d/wk-1a	15d	12-Mar-15 08	26-Mar-15 18	11d			■ EB, Inner Bench From East, CH 4145- 4135 = 10m				
A8870	EB, Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	28-Mar-15 08	12-Apr-15 18	10d			■ EB, Inner Bench From East, CH 4135- 4125 = 10m				
A8855	EB, Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	5d			■ EB, Inner Bench From East, CH 4125- 4115 = 10m				
A8875	EB, Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	09-May-15 08	23-May-15 18	0d			■ EB, Inner Bench From East, CH 4115- 4105 = 10m				
A9915	EB, Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	16d	24-May-15 08	08-Jun-15 18	0d			■ EB, Inner Bench From East, CH 4105- 4095 = 10m				
Tunnel Lining Works													
From West Base Slab (10m/bay, 10m separation with benching excavation)													
A8900	EB From West, Base Slab CH 3990 - 3995 = 1 bay	7d/wk-1a	10d	04-Dec-14 08	13-Dec-14 18	33d			■ EB From West, Base Slab CH 3990 - 3995 = 1 bay				
A8890	EB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Jan-15 08	13-Jan-15 18	14d			■ EB From West, Base Slab CH 3995 - 4005 = 10m/bay				
A8905	EB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	24-Jan-15 08	02-Feb-15 18	4d			■ EB From West, Base Slab CH 4005 - 4015 = 10m/bay				
A8910	EB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	14d			■ EB From West, Base Slab CH 4015 - 4025 = 10m/bay				
A8915	EB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	12d			■ EB From West, Base Slab CH 4025 - 4035 = 10m/bay				
A8920	EB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	28-Mar-15 08	07-Apr-15 18	8d			■ EB From West, Base Slab CH 4035 - 4045 = 10m/bay				
A8925	EB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	18-Apr-15 08	27-Apr-15 18	4d			■ EB From West, Base Slab CH 4045 - 4055 = 10m/bay				
A8930	EB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	5d			■ EB From West, Base Slab CH 4055 - 4065 = 10m/bay				
A8880	EB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	5d			■ EB From West, Base Slab CH 4065 - 4075 = 10m/bay				
A8885	EB From West, Base Slab CH 4075 - 4085 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	0d			■ EB From West, Base Slab CH 4075 - 4085 = 10m/bay				
A8895	EB From West, Base Slab CH 4085 - 4095 = 10m/bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	0d			■ EB From West, Base Slab CH 4085 - 4095 = 10m/bay				
From East Base Slab (10m/bay, 10m separation with benching excavation)													
A9905	EB From East, Base Slab CH 4149.5 - 4145 = 4.5m	7d/wk-1a	10d	13-Apr-15 08	22-Apr-15 18	26d			■ EB From East, Base Slab CH 4149.5 - 4145 = 4.5m				
A9900	EB From East, Base Slab CH 4145 - 4135 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	16d			■ EB From East, Base Slab CH 4145 - 4135 = 10m/bay				
A9895	EB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	24-May-15 08	02-Jun-15 18	6d			■ EB From East, Base Slab CH 4135 - 4125 = 10m/bay				
A9890	EB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	09-Jun-15 08	18-Jun-15 18	0d			■ EB From East, Base Slab CH 4125 - 4115 = 10m/bay				
A9885	EB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d			■ EB From East, Base Slab CH 4115 - 4105 = 10m/bay				
A9880	EB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d			■ EB From East, Base Slab CH 4105 - 4095 = 10m/bay				
Lining (5m/bay, 15m separation with base slab)													
A9065	EB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	10d	03-Feb-15 08	12-Feb-15 18	4d			■ EB From West, Lining CH 3990 - 3995 = 1bay				
A9005	EB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	4d			■ EB From West, Lining CH 3995 - 4000 = 1bay				
A9090	EB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	10d	26-Feb-15 08	07-Mar-15 18	4d			■ EB From West, Lining CH 4000 - 4005 = 1bay				
Summary Bar							Prepared by William Caluza						
Actual Level of Effort							Date Revision Checked Approved						
Actual Work							26-Sep... 1st submission						
Remaining Work													
Critical Remaining Work													
Milestone													
11 of 18							China State Construction Engineering (Hong Kong) Ltd						
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)							CHC CHCE						
WORKS PROGRAMME REV. M							中國建築工程(香港)有限公司 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD						

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A9050	EB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	4d			■ EB From West, Lining CH 4005 - 4010 = 1bay					
A9055	EB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	10d	18-Mar-15 08	27-Mar-15 18	4d			■ EB From West, Lining CH 4010 - 4015 = 1bay					
A9060	EB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	10d	26-Mar-15 08	05-Apr-15 18	4d			■ EB From West, Lining CH 4015 - 4020 = 1bay					
A9070	EB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	10d	03-Apr-15 08	13-Apr-15 18	4d			■ EB From West, Lining CH 4020 - 4025 = 1bay					
A9075	EB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	10d	12-Apr-15 08	21-Apr-15 18	4d			■ EB From West, Lining CH 4025 - 4030 = 1bay					
A9080	EB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	10d	20-Apr-15 08	29-Apr-15 18	4d			■ EB From West, Lining CH 4030 - 4035 = 1bay					
A9085	EB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	10d	28-Apr-15 08	08-May-15 18	4d			■ EB From West, Lining CH 4035 - 4040 = 1bay					
A9015	EB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	10d	07-May-15 08	16-May-15 18	4d			■ EB From West, Lining CH 4040 - 4045 = 1bay					
A9020	EB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	10d	15-May-15 08	24-May-15 18	4d			■ EB From West, Lining CH 4045 - 4050 = 1bay					
A9025	EB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	10d	23-May-15 08	01-Jun-15 18	4d			■ EB From West, Lining CH 4050 - 4055 = 1bay					
A9030	EB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	10d	31-May-15 08	09-Jun-15 18	4d			■ EB From West, Lining CH 4055 - 4060 = 1bay					
A9035	EB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	10d	07-Jun-15 08	16-Jun-15 18	4d			■ EB From West, Lining CH 4060 - 4065 = 1bay					
A9040	EB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	4d			■ EB From West, Lining CH 4065 - 4070 = 1bay					
A9045	EB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	10d	25-Jun-15 08	05-Jul-15 18	0d			■ EB From West, Lining CH 4070 - 4075 = 1bay					
A8955	EB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d			■ EB From West, Lining CH 4075 - 4080 = 1bay					
A8960	EB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d			■ EB From West, Lining CH 4080 - 4085 = 1bay					
A8970	EB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d			■ EB From West, Lining CH 4085 - 4090 = 1bay					
A8975	EB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d			■ EB From West, Lining CH 4090 - 4095 = 1bay					
A8980	EB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d			■ EB From West, Lining CH 4095 - 4100 = 1bay					
A8985	EB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d			■ EB From West, Lining CH 4100 - 4105 = 1bay					
A8990	EB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d			■ EB From West, Lining CH 4105 - 4110 = 1bay					
A8995	EB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d			■ EB From West, Lining CH 4110 - 4115 = 1bay					
A9000	EB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d			■ EB From West, Lining CH 4115 - 4120 = 1bay					
A9010	EB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d			■ EB From West, Lining CH 4120 - 4125 = 1bay					
A8965	EB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d			■ EB From West, Lining CH 4125 - 4130 = 1bay					
A8935	EB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d			■ EB From West, Lining CH 4130 - 4135 = 1bay					
A8940	EB From West, Lining CH 4135 - 4140 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d			■ EB From West, Lining CH 4135 - 4140 = 1bay					
A8945	EB From West, Lining CH 4140 - 4145 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d			■ EB From West, Lining CH 4140 - 4145 = 1bay					
A8950	EB From West, Lining CH 4145 - 4149.5 = 4.5m	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d			■ EB From West, Lining CH 4145 - 4149.5 = 4.5m					

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

◆ Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015							2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
OHVD(10m/bay) / Utility Trough																
A9095	EB From West OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	03-Jul-15 08	02-Nov-15 18	0d								EB From West OHVD and utility trough =, 167= 17 bays @ 10		
WB Outer Tunnel Excavation																
From West (TPCWAE)																
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																
A9651	WB, Outer Heading From West, CH 4085- 4092.5 = 7.5m @ 2d/m	7d/wk-1a	15d	13-Sep-14 08 A	30-Sep-14 18	163d								WB, Outer Heading From West, CH 4085- 4092.5 = 7.5m @ 2d/m		
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)																
A9680	WB, Outer Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	12-Oct-14 08	26-Oct-14 18	163d								WB, Outer Bench From West, CH 4025- 4035 = 10m		
A9665	WB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	27-Oct-14 08	10-Nov-14 18	163d								WB, Outer Bench From West, CH 4035- 4045 = 10m		
A9670	WB, Outer Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	163d								WB, Outer Bench From West, CH 4045- 4055 = 10m		
A9675	WB, Outer Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	163d								WB, Outer Bench From West, CH 4055- 4065 = 10m		
A9700	WB, Outer Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	11-Dec-14 08	26-Dec-14 18	163d								WB, Outer Bench From West, CH 4065- 4075 = 10m		
A9701	WB, Outer Bench From West, CH 4075- 4082.5 = 7.5m	7d/wk-1a	15d	27-Dec-14 08	11-Jan-15 18	163d								WB, Outer Bench From West, CH 4075- 4082.5 = 7.5m		
From East (TS4)																
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																
A9730	WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m @2d/m	7d/wk-1a	25d	30-Aug-14 08 A	30-Sep-14 18	168d								WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m @2d/m		
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)																
A9740	WB, Outer Bench From East, CH 4136- 4135 = 1m	7d/wk-1a	2d	12-Oct-14 08	13-Oct-14 18	168d								WB, Outer Bench From East, CH 4136- 4135 = 1m		
A9770	WB, Outer Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	14-Oct-14 08	28-Oct-14 18	168d								WB, Outer Bench From East, CH 4135- 4125 = 10m		
A9745	WB, Outer Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	28-Oct-14 08	11-Nov-14 18	168d								WB, Outer Bench From East, CH 4125- 4115 = 10m		
A9750	WB, Outer Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	168d								WB, Outer Bench From East, CH 4115- 4105 = 10m		
A9755	WB, Outer Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	168d								WB, Outer Bench From East, CH 4105- 4095 = 10m		
A9760	WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m	7d/wk-1a	25d	11-Dec-14 08	06-Jan-15 18	168d								WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m		
WB (Inner Tunnel Excavation + Lining)																
From West (TPCWAE)																
Inner Heading Excavation (2-3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																
A9130	WB, Inner Heading From West, CH 3993- 4005 = 12m @3d/m	7d/wk-1a	50d	29-Sep-14 08	18-Nov-14 18	0d								WB, Inner Heading From West, CH 3993- 4005 = 12m @3d/m		
A9135	WB, Inner Heading From West, CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	0d								WB, Inner Heading From West, CH 4005- 4015 = 10m @2d/m		
A9140	WB, Inner Heading From West, CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	0d								WB, Inner Heading From West, CH 4015- 4025 = 10m @2d/m		

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
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中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2016								
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
A9100	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	0d			WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m						
A9105	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	0d			WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m						
A9110	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	09-Feb-15 08	03-Mar-15 18	0d			WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m						
A9115	WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	04-Mar-15 08	23-Mar-15 18	0d			WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m						
A9120	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	24-Mar-15 08	13-Apr-15 18	0d			WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m						
A9125	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	14-Apr-15 08	04-May-15 18	0d			WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m						
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)															
A9180	WB,Inner Bench From West, CH 3993- 4005 = 12m	7d/wk-1a	18d	30-Dec-14 08	17-Jan-15 18	27d			WB,Inner Bench From West, CH 3993- 4005 = 12m						
A9205	WB,Inner Bench From West, CH 4005- 4015 = 10m	7d/wk-1a	15d	20-Jan-15 08	03-Feb-15 18	25d			WB,Inner Bench From West, CH 4005- 4015 = 10m						
A9190	WB,Inner Bench From West, CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	20d			WB,Inner Bench From West, CH 4015- 4025 = 10m						
A9185	WB,Inner Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	04-Mar-15 08	18-Mar-15 18	15d			WB,Inner Bench From West, CH 4025- 4035 = 10m						
A9155	WB,Inner Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	24-Mar-15 08	08-Apr-15 18	10d			WB,Inner Bench From West, CH 4035- 4045 = 10m						
A9160	WB,Inner Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	14-Apr-15 08	28-Apr-15 18	5d			WB,Inner Bench From West, CH 4045- 4055 = 10m						
A9165	WB,Inner Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d			WB,Inner Bench From West, CH 4055- 4065 = 10m						
A9170	WB,Inner Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d			WB,Inner Bench From West, CH 4065- 4075 = 10m						
A9175	WB,Inner Bench From West, CH 4075- 4085 = 10m	7d/wk-1a	15d	04-Jun-15 08	18-Jun-15 18	0d			WB,Inner Bench From West, CH 4075- 4085 = 10m						
From East (TS4)															
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)															
A9210	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	14-Jan-15 08	02-Feb-15 18	6d			WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m						
A9215	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	03-Feb-15 08	25-Feb-15 18	6d			WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m						
A9230	WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	26-Feb-15 08	17-Mar-15 18	6d			WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m						
A9232	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Mar-15 08	07-Apr-15 18	6d			WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m						
A9225	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m	7d/wk-1a	20d	08-Apr-15 08	27-Apr-15 18	6d			WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m						
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)															
A9235	WB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	18-Mar-15 08	01-Apr-15 18	16d			WB,Inner Bench From East, CH 4135- 4125 = 10m						
A9240	WB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	08-Apr-15 08	22-Apr-15 18	11d			WB,Inner Bench From East, CH 4125- 4115 = 10m						
A9245	WB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	28-Apr-15 08	13-May-15 18	6d			WB,Inner Bench From East, CH 4115- 4105 = 10m						
A9247	WB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	14-May-15 08	28-May-15 18	6d			WB,Inner Bench From East, CH 4105- 4095 = 10m						
A9250	WB,Inner Bench From East, CH 4095- 4085 = 10m	7d/wk-1a	15d	29-May-15 08	12-Jun-15 18	6d			WB,Inner Bench From East, CH 4095- 4085 = 10m						

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

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中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float									
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Tunnel Lining Works															
From West Base Slab (10m/bay, 10m separation with benching excavation)															
A9295	WB From West, Base Slab CH 3990 - 3995 = 5m bay	7d/wk-1a	10d	18-Jan-15 08	27-Jan-15 18	37d	■ WB From West, Base Slab CH 3990 - 3995 = 5m bay								
A9320	WB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Feb-15 08	13-Feb-15 18	30d	■ WB From West, Base Slab CH 3995 - 4005 = 10m/bay								
A9255	WB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	27-Feb-15 08	08-Mar-15 18	50d	■ WB From West, Base Slab CH 4005 - 4015 = 10m/bay								
A9260	WB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	19-Mar-15 08	28-Mar-15 18	40d	■ WB From West, Base Slab CH 4015 - 4025 = 10m/bay								
A9265	WB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	09-Apr-15 08	18-Apr-15 18	30d	■ WB From West, Base Slab CH 4025 - 4035 = 10m/bay								
A9300	WB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	29-Apr-15 08	09-May-15 18	20d	■ WB From West, Base Slab CH 4035 - 4045 = 10m/bay								
A9325	WB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	10d	■ WB From West, Base Slab CH 4045 - 4055 = 10m/bay								
A9305	WB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	5d	■ WB From West, Base Slab CH 4055 - 4065 = 10m/bay								
A9310	WB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d	■ WB From West, Base Slab CH 4065 - 4075 = 10m/bay								
A9315	WB From West, Base Slab CH 4075 - 4080 = 5m	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d	■ WB From West, Base Slab CH 4075 - 4080 = 5m								
From East Base Slab (10m/bay, 10m separation with benching excavation)															
A9960	WB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	23-Apr-15 08	03-May-15 18	26d	■ WB From East, Base Slab CH 4135 - 4125 = 10m/bay								
A9955	WB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	14-May-15 08	23-May-15 18	16d	■ WB From East, Base Slab CH 4125 - 4115 = 10m/bay								
A9950	WB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	29-May-15 08	07-Jun-15 18	11d	■ WB From East, Base Slab CH 4115 - 4105 = 10m/bay								
A9945	WB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	13-Jun-15 08	23-Jun-15 18	6d	■ WB From East, Base Slab CH 4105 - 4095 = 10m/bay								
A9940	WB From East, Base Slab CH 4095 - 4085 = 10m/bay	7d/wk-1a	10d	24-Jun-15 08	04-Jul-15 18	6d	■ WB From East, Base Slab CH 4095 - 4085 = 10m/bay								
A9941	WB From East, Base Slab CH 4085 - 4080 = 5m	7d/wk-1a	10d	05-Jul-15 08	14-Jul-15 18	6d	■ WB From East, Base Slab CH 4085 - 4080 = 5m								
Lining (5m/bay, 10m separation with base slab)															
A9430	WB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	7d	14-Feb-15 08	23-Feb-15 18	30d	■ WB From West, Lining CH 3990 - 3995 = 1bay								
A9470	WB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	7d	24-Feb-15 08	02-Mar-15 18	30d	■ WB From West, Lining CH 3995 - 4000 = 1bay								
A9435	WB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	7d	03-Mar-15 08	09-Mar-15 18	30d	■ WB From West, Lining CH 4000 - 4005 = 1bay								
A9360	WB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	7d	10-Mar-15 08	16-Mar-15 18	30d	■ WB From West, Lining CH 4005 - 4010 = 1bay								
A9365	WB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	7d	17-Mar-15 08	23-Mar-15 18	30d	■ WB From West, Lining CH 4010 - 4015 = 1bay								
A9370	WB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	7d	24-Mar-15 08	30-Mar-15 18	30d	■ WB From West, Lining CH 4015 - 4020 = 1bay								
A9375	WB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	7d	31-Mar-15 08	07-Apr-15 18	30d	■ WB From West, Lining CH 4020 - 4025 = 1bay								
A9380	WB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	7d	08-Apr-15 08	14-Apr-15 18	30d	■ WB From West, Lining CH 4025 - 4030 = 1bay								
A9385	WB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	7d	15-Apr-15 08	21-Apr-15 18	30d	■ WB From West, Lining CH 4030 - 4035 = 1bay								

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)


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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
A9390	WB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	7d	22-Apr-15 08	28-Apr-15 18	30d				■ WB From West, Lining CH 4035 - 4040 = 1bay								
A9330	WB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	7d	29-Apr-15 08	06-May-15 18	30d				■ WB From West, Lining CH 4040 - 4045 = 1bay								
A9335	WB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	7d	07-May-15 08	13-May-15 18	30d				■ WB From West, Lining CH 4045 - 4050 = 1bay								
A9340	WB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	7d	14-May-15 08	20-May-15 18	30d				■ WB From West, Lining CH 4050 - 4055 = 1bay								
A9345	WB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	7d	21-May-15 08	27-May-15 18	30d				■ WB From West, Lining CH 4055 - 4060 = 1bay								
A9350	WB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	7d	28-May-15 08	03-Jun-15 18	30d				■ WB From West, Lining CH 4060 - 4065 = 1bay								
A9355	WB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	5d	04-Jun-15 08	08-Jun-15 18	30d				■ WB From West, Lining CH 4065 - 4070 = 1bay								
A9415	WB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d				■ WB From West, Lining CH 4070 - 4075 = 1bay								
A9475	WB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d				■ WB From West, Lining CH 4075 - 4080 = 1bay								
A9440	WB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d				■ WB From West, Lining CH 4080 - 4085 = 1bay								
A9445	WB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d				■ WB From West, Lining CH 4085 - 4090 = 1bay								
A9450	WB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d				■ WB From West, Lining CH 4090 - 4095 = 1bay								
A9455	WB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d				■ WB From West, Lining CH 4095 - 4100 = 1bay								
A9420	WB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d				■ WB From West, Lining CH 4100 - 4105 = 1bay								
A9425	WB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d				■ WB From West, Lining CH 4105 - 4110 = 1bay								
A9460	WB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d				■ WB From West, Lining CH 4110 - 4115 = 1bay								
A9465	WB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d				■ WB From West, Lining CH 4115 - 4120 = 1bay								
A9395	WB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d				■ WB From West, Lining CH 4120 - 4125 = 1bay								
A9400	WB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d				■ WB From West, Lining CH 4125 - 4130 = 1bay								
A9405	WB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d				■ WB From West, Lining CH 4130 - 4135 = 1bay								
A9410	WB From West, Lining CH 4135 - 4136.5 = 1bay	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d				■ WB From West, Lining CH 4135 - 4136.5 = 1bay								
OHVD(10m/bay) / Utility Trough																		
A9480	WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay	7d/wk-1a	115d	08-Jul-15 08	02-Nov-15 18	0d				■ WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay								
Completion of KD10- Section 5																		
A8445	KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)	7d/wk-2	0d		02-Nov-15 18*	0d					◆ KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)							
Interface works with other Contracts																		
S5_60115	Handover TZ6 to MTR	7d/wk-2	0d		30-Sep-14 18	-249d	◆ Handover TZ6 to MTR											
S6_5283	Handover TZ4 to CWB(T2)	7d/wk-2	0d		10-Nov-14 18	-290d	◆ Handover TZ4 to CWB(T2)											
S6_5275	Provide access to CWB (CC) Contractor- TS1 & TS2	7d/wk-2	0d		21-Nov-14 18*	-85d	◆ Provide access to CWB (CC) Contractor- TS1 & TS2											
16 of 18							Prepared by William Caluza											
China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)							Date	Revision	Checked	Approved	 中國建築工程(香港)有限公司 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.							
							26-Sep...	1st submission										
Summary Bar																		
Actual Level of Effort																		
Actual Work																		
Remaining Work																		
Critical Remaining Work																		
◆ Milestone																		

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
SB_5280	Provide access to CWB (CC) Contractor- TS4, TPCWA, Mined Tunnel	7d/wk-2	0d		31-Mar-16 18*	-124d							◆ Provide access to CWB (CC) C
Stage and Section Completion													
KD_5735	KD8 - Completion of Section 3, (1326d)	7d/wk-2	0d		30-Sep-14 18*	-86d	◆ KD8 - Completion of Section 3, (1326d)						
KD_5720	KD5 - Achievement of Stage 5, (1152d)	7d/wk-2	0d		16-Oct-14 18*	-323d	◆ KD5 - Achievement of Stage 5, (1152d)						
KD_5760	KD13 - Completion of Section 7B, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-353d	◆ KD13 - Completion of Section 7B, (1152d)						
KD_5730	KD7 - Completion of Section 2, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-297d	◆ KD7 - Completion of Section 2, (1152d)						
KD_5740	KD9 - Completion of Section 4, (1739d)	7d/wk-2	0d		10-Nov-15 18*	-132d				◆ KD9 - Completion of Section 4, (1739d)			
KD_5745	KD10 - Completion of Section 5, (1863d)	7d/wk-2	0d		25-Mar-16 18	-144d				◆ KD10 - Completion of Section 5,			
KD_5750	KD11 - Completion of Section 6, (1949d)	7d/wk-2	0d		23-May-16 18*	-121d				◆ KD11 - Completion of			
Portion Handover Date													
CD_5685	Portion Handover - Portion IV(4), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion IV(4), KD8 +28						
CD_5680	Portion Handover - Portion V (5), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion V (5), KD8 +28						
CD_5695	Portion Handover - Portion VI (6), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion VI (6), KD8 +28						
CD_5735	Portion Handover - Portion XIII B (13B), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XIII B (13B), KD8 +28						
CD_5790	Portion Handover - Portion XXII (22), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XXII (22), KD8 +28						
CD_5670	Portion Handover - Portion III (3), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion III (3), KD8 +28						
CD_5720	Portion Handover - Portion XIII A (13A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIII A (13A), KD7 +28						
CD_5705	Portion Handover - Portion VIII (8), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion VIII (8), KD7 +28						
CD_5730	Portion Handover - Portion XIVA (14A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIVA (14A), KD7 +28						
CD_5740	Portion Handover - Portion XV (15), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XV (15), KD7 +28						
CD_5805	Portion Handover - Portion XXIII (23), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XXIII (23), KD7 +28						
CD_5775	Portion Handover - Portion XVIII (18), KD10 +28	7d/wk-2	0d		30-Nov-15 18*	0d				◆ Portion Handover - Portion XVIII (18), KD10 +28			
CD_5710	Portion Handover - Portion XI (11), KD9 +28	7d/wk-2	0d		27-Dec-15 18*	0d				◆ Portion Handover - Portion XI (11), KD9 +28			
CD_5700	Portion Handover - Portion IX (9), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d				◆ Portion Handover - Portion			
CD_5745	Portion Handover - Portion XIV B (14B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d				◆ Portion Handover - Portion			
CD_5755	Portion Handover - Portion XVI (16), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d				◆ Portion Handover - Portion			
CD_5750	Portion Handover - Portion XVII (17), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d				◆ Portion Handover - Portion			
CD_5760	Portion Handover - Portion XIX (19), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d				◆ Portion Handover - Portion			
CD_5780	Portion Handover - Portion XX B (20B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d				◆ Portion Handover - Portion			

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

◆ Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
25-Sep...	1st submission		

CSEC

中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
CD_5690	Portion Handover - Portion VII (7), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5725	Portion Handover - Portion XII (12), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5715	Portion Handover - Portion X (10), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5785	Portion Handover - Portion XXA (20A), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5795	Portion Handover - Portion XXI (21), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov

 Summary Bar
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

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China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

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中國建築工程(香港)有限公司
 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

- ◆ Milestone
- ◆ Critical Milestones
- Current Works
- Critical Works

Activity ID		Activity Name	On Dur	Ram Dur	Scheduled Actual Start	Scheduled Actual Finish	Total Float	Calendar	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050		2051		2052		2053		2054		2055		2056		2057		2058		2059		2060		2061		2062		2063		2064		2065		2066		2067		2068		2069		2070		2071		2072		2073		2074		2075		2076		2077		2078		2079		2080		2081		2082		2083		2084		2085		2086		2087		2088		2089		2090		2091		2092		2093		2094		2095		2096		2097		2098		2099		2100		2101		2102		2103		2104		2105		2106		2107		2108		2109		2110		2111		2112		2113		2114		2115		2116		2117		2118		2119		2120		2121		2122		2123		2124		2125		2126		2127		2128		2129		2130		2131		2132		2133		2134		2135		2136		2137		2138		2139		2140		2141		2142		2143		2144		2145		2146		2147		2148		2149		2150		2151		2152		2153		2154		2155		2156		2157		2158		2159		2160		2161		2162		2163		2164		2165		2166		2167		2168		2169		2170		2171		2172		2173		2174		2175		2176		2177		2178		2179		2180		2181		2182		2183		2184		2185		2186		2187		2188		2189		2190		2191		2192		2193		2194		2195		2196		2197		2198		2199		2200		2201		2202		2203		2204		2205		2206		2207		2208		2209		2210		2211		2212		2213		2214		2215		2216		2217		2218		2219		2220		2221		2222		2223		2224		2225		2226		2227		2228		2229		2230		2231		2232		2233		2234		2235		2236		2237		2238		2239		2240		2241		2242		2243		2244		2245		2246		2247		2248		2249		2250		2251		2252		2253		2254		2255		2256		2257		2258		2259		2260		2261		2262		2263		2264		2265		2266		2267		2268		2269		2270		2271		2272		2273		2274		2275		2276		2277		2278		2279		2280		2281		2282		2283		2284		2285		2286		2287		2288		2289		2290		2291		2292		2293		2294		2295		2296		2297		2298		2299		2300		2301		2302		2303		2304		2305		2306		2307		2308		2309		2310		2311		2312		2313		2314		2315		2316		2317		2318		2319		2320		2321		2322		2323		2324		2325		2326		2327		2328		2329		2330		2331		2332		2333		2334		2335		2336		2337		2338		2339		2340		2341		2342		2343		2344		2345		2346		2347		2348		2349		2350		2351		2352		2353		2354		2355		2356		2357		2358		2359		2360		2361		2362		2363		2364		2365		2366		2367		2368		2369		2370		2371		2372		2373		2374		2375		2376		2377		2378		2379		2380		2381		2382		2383		2384		2385		2386		2387		2388		2389		2390		2391		2392		2393		2394		2395		2396		2397		2398		2399		2400		2401		2402		2403		2404		2405		2406		2407		2408		2409		2410		2411		2412		2413		2414		2415		2416		2417		2418		2419		2420		2421		2422		2423		2424		2425		2426		2427		2428		2429		2430		2431		2432		2433		2434		2435		2436		2437		2438		2439		2440		2441		2442		2443		2444		2445		2446		2447		2448		2449		2450		2451		2452		2453		2454		2455		2456		2457		2458		2459		2460		2461		2462		2463		2464		2465		2466		2467		2468		2469		2470		2471		2472		2473		2474		2475		2476		2477		2478		2479		2480		2481		2482		2483		2484		2485		2486		2487		2488		2489		2490		2491		2492		2493		2494		2495		2496		2497		2498		2499		2500		2501		2502		2503		2504		2505		2506		2507		2508		2509		2510		2511		2512		2513		2514		2515		2516		2517		2518		2519		2520		2521		2522		2523		2524		2525		2526		2527		2528		2529		2530		2531		2532		2533		2534		2535		2536		2537		2538		2539		2540		2541		2542		2543		2544		2545		2546		2547		2548		2549		2550		2551		2552		2553		2554		2555		2556		2557		2558		2559		2560		2561		2562		2563		2564		2565		2566		2567		2568		2569		2570		2571		2572		2573		2574		2575		2576		2577		2578		2579		2580		2581		2582		2583		2584		2585		2586		2587		2588		2589		2590		2591		2592		2593		2594		2595		2596		2597		2598		2599		2600		2601		2602		2603		2604		2605		2606		2607		2608		2609		2610		2611		2612		2613		2614		2615		2616		2617		2618		2619		2620		2621		2622		2623		2624		2625		2626		2627		2628		2629		2630		2631		2632		2633		2634		2635		2636		2637		2638		2639		2640		2641		2642		2643		2644		2645		2646		2647		2648		2649		2650		2651		2652		2653		2654		2655		2656		2657		2658		2659		2660		2661		2662		2663		2664		2665		2666		2667		2668		2669		2670		2671		2672		2673		2674		2675		2676		2677		2678		2679		2680		2681		2682		2683		2684		2685		2686		2687		2688		2689		2690		2691		2692		2693		2694		2695		2696		2697		2698		2699		2700		2701		2702		2703		2704		2705		2706		2707		2708		2709		2710		2711		2712		2713		2714		2715		2716		2717		2718		2719		2720		2721		2722		2723		2724		2725		2726		2727		2728		2729		2730		2731		2732		2733		2734		2735		2736		2737		2738		2739		2740		2741		2742		2743		2744		2745		2746		2747		2748		2749		2750		2751		2752		2753		2754		2755		2756		2757		2758		2759		2760		2761		2762		2763		2764		2765		2766		2767		2768		2769		2770		2771		2772		2773		2774		2775		2776		2777		2778		2779		2780		2781		2782		2783		2784		2785		2786		2787		2788		2789		2790		2791		2792		2793		2794		2795		2796		2797		2798		2799		2800		2801		2802		2803		2804		2805		2806		2807		2808		2809		2810		2811		2812		2813		2814		2815		2816		2817		2818		2819		2820		2821		2822		2823		2824		2825		2826		2827		2828		2829		2830		2831		2832		2833		2834		2835		2836		2837		2838		2839		2840		2841		2842		2843		2844		2845	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[illegible]

Activity ID	Activity Name	Original Duration	Start	Finish	2015			
					Sep	Oct	Nov	Dec
DWP-06 (A) - Three Months Rolling Programme_updated up to 20-Sep-15								
Works in TS3								
Works in TS3-East								
ELS								
TS3-East ELS Works								
TS3E_5660	ELS Layer 7 - Soft Excav + Strut installation	10	24-Aug-15 A	21-Sep-15 A				
TS3E_5670	Excavation up to Formation Level (No Rock as Rock Head Level is far below F.L.)	6	03-Sep-15 A	22-Sep-15 A				
Cut & Cover Tunnel Structure								
TS3-East CCT - Ch.4500.000 to Ch.4582.140								
TS3 East CCT - Blinding + Waterproofing								
TS3E_6515	TS3(E) Blinding - Bay 1 - 8	8	14-Sep-15 A	27-Sep-15				
TS3E_6525	TS3(E) Waterproofing - Bay 1 - 8	12	22-Sep-15 A	01-Oct-15				
TS3 East CCT - Base Slab + Drainage System								
TS3E_6570	CCT Base Slab - Bay 1 (Ch.4500.000 to Ch.4510.000)	8	23-Sep-15 A	01-Oct-15				
TS3E_6610	CCT Base Slab - Bay 5	8	30-Sep-15	07-Oct-15				
TS3E_6580	CCT Base Slab - Bay 2	8	02-Oct-15	09-Oct-15				
TS3E_6620	CCT Base Slab - Bay 6	8	08-Oct-15	15-Oct-15				
TS3E_6590	CCT Base Slab - Bay 3	8	10-Oct-15	17-Oct-15				
TS3E_6630	CCT Base Slab - Bay 7	8	16-Oct-15	23-Oct-15				
TS3E_6600	CCT Base Slab - Bay 4	8	18-Oct-15	25-Oct-15				
TS3E_6640	CCT Base Slab - Bay 8	8	24-Oct-15	31-Oct-15				
TS3 East CCT - Walls + Removal of Struts 7 & 8								
TS3E_6650	CCT Walls - Bay 1	10	10-Oct-15	19-Oct-15				
TS3E_6690	CCT Walls - Bay 5	10	16-Oct-15	25-Oct-15				
TS3E_6660	CCT Walls - Bay 2	10	20-Oct-15	29-Oct-15				
TS3E_6700	CCT Walls - Bay 6	10	26-Oct-15	04-Nov-15				
TS3E_6670	CCT Walls - Bay 3	10	30-Oct-15	08-Nov-15				
TS3E_6710	CCT Walls - Bay 7	10	05-Nov-15	14-Nov-15				
TS3E_6680	CCT Walls - Bay 4	10	27-Nov-15	06-Dec-15				
TS3E_6720	CCT Walls - Bay 8	10	27-Nov-15	06-Dec-15				
TS3-East CCT - OHVD Cast in-Situ								
TS3E_6860	TS3(E) Cast OHVD in situ - Bay 1	10	23-Nov-15	02-Dec-15				
TS3E_6870	TS3(E) Cast OHVD in situ - Bay 2	10	03-Dec-15	12-Dec-15				
TS3E_6880	TS3(E) Cast OHVD in situ - Bay 3	10	09-Dec-15	18-Dec-15				
TS3E_6900	TS3(E) Cast OHVD in situ - Bay 5	10	09-Dec-15	18-Dec-15				
TS3E_6890	TS3(E) Cast OHVD in situ - Bay 4	10	17-Dec-15	26-Dec-15				
TS3E_6910	TS3(E) Cast OHVD in situ - Bay 6	10	19-Dec-15	28-Dec-15				
TS3 East CCT - Roof Slab								
TS3E_6730	CCT Roof Slab - Bay 1	10	30-Oct-15	08-Nov-15				
TS3E_6770	CCT Roof Slab - Bay 5	10	05-Nov-15	14-Nov-15				
TS3E_6740	CCT Roof Slab - Bay 2	10	09-Nov-15	18-Nov-15				
TS3E_6780	CCT Roof Slab - Bay 6	10	15-Nov-15	24-Nov-15				



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Actual Work
Remaining Work
Critical Remaining Work
Milestone

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Contract No. HY/2010/08: Central - Wanchai Bypass Tunnel +(Slip
Road 8 Section) - 3 Months Rolling Programme

Date	Revision	Checked	Approved
20-Sep-15	Updated to 20th Sep 2015	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish	2015											
					Sep			Oct			Nov			Dec		
SR8.EB.1621	ELS Layer 2 - Soft Excavation + Strut Installation	12	03-Nov-15	16-Nov-15												
SR8.EB.1622	ELS Layer 3 - Soft Excavation + Strut Installation	12	17-Nov-15	30-Nov-15												
SR8.EB.1623	ELS Layer 4 - Soft Excavation + Strut Installation	12	01-Dec-15	14-Dec-15												
SR8.EB.1624	ELS Layer 5 - Soft Excavation + Strut Installation	12	15-Dec-15	30-Dec-15												
SR8 West Bound - Ch. 459.000 to 385.000 (Victoria Road / IEC Central Divider)																
TTA Stage 2 - West Bound																
Stage 3 - West Bound (Ref. DRG. No.CDD/SR8/087)																
SR8.WB.3060	Install Dewatering Wells & Carry out Pump Test	20	03-Sep-15 A	30-Sep-15												
Tunnel Ch.459.000 to 385.000 (West Bound) - ELS / CCT/ BF+Reinstatement Works																
West Bound - ELS																
SR8.WB.5070	Commence ELS works (Cofferdam Complete)	0	07-Oct-15													
SR8.WB.5080	ELS Layer 1 - Soft Excavation + Strut Installation	12	07-Oct-15	20-Oct-15												
SR8.WB.5130	ELS Layer 2 - Soft Excavation + Strut Installation	12	22-Oct-15	04-Nov-15												
SR8.WB.5140	ELS Layer 3 - Soft Excavation + Strut Installation	12	05-Nov-15	18-Nov-15												
SR8.WB.5150	ELS Layer 4 - Soft Excavation + Strut Installation	12	19-Nov-15	02-Dec-15												
SR8.WB.5160	ELS Layer 5 - Soft Excavation + Strut Installation	12	03-Dec-15	16-Dec-15												
West Bound - CCT Structural Works																
Blinding + Waterproofing																
SR8.WB.5090	Blinding for Bay 1 to Bay 8	9	16-Dec-15	29-Dec-15												
SR8 Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)																
SR8 Tunnel - ELS / CCT / BF Works (7 Bays Ch. 385.000 to Ch.317.500)																
Portal Structure																
Base Slab + Drainage																
SR8.VP.5120	Base Slab - Bay 3	8	10-Sep-15 A	22-Sep-15 A												
SR8.VP.5130	Base Slab - Bay 4	8	10-Sep-15 A	22-Oct-15 A												
SR8.VP.5140	Base Slab - Bay 5	8	05-Oct-15	13-Oct-15												
SR8.VP.5150	Base Slab - Bay 6	8	14-Oct-15	23-Oct-15												
SR8.VP.5160	Base Slab - Bay 7	8	24-Oct-15	02-Nov-15												
Wall + Removal of Strut																
SR8.VP.5170	Wall - Bay 1	10	15-Sep-15 A	21-Nov-15												
SR8.VP.5180	Wall - Bay 2	10	15-Sep-15 A	03-Dec-15												
SR8.VP.5190	Wall - Bay 3	10	04-Dec-15	15-Dec-15												
SR8.VP.5200	Wall - Bay 4	10	16-Dec-15	29-Dec-15												
Roof Slab																
SR8.VP.5240	Roof Slab - Bay 1	10	04-Dec-15	15-Dec-15												
SR8.VP.5250	Roof Slab - Bay 2	10	16-Dec-15	29-Dec-15												
Pump Sump E																
SR8.VP.5370	Wall Up to Portal Base Slab Bottom	10	21-Sep-15	03-Oct-15												
SR8.VP.5380	Fill Up Void Up to Portal Base Slab Bottom	7	05-Oct-15	12-Oct-15												
SR8.VP.5390	Wall Up to Portal Roof Bottom	10	14-Oct-15	26-Oct-15												
SR8.VP.5400	Wall + Roof Slab	14	27-Oct-15	11-Nov-15												
SR8.VP.5440	Slab for Pump Room	21	27-Oct-15	19-Nov-15												
SR8.VP.5410	Access Chamber above Roof	14	12-Nov-15	27-Nov-15												

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Actual Work

Remaining Work

Critical Remaining Work

Milestone

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Contract No. HY/2010/08: Central - Wanchai Bypass Tunnel +(Slip Road 8 Section) - 3 Months Rolling Programme

Date

20-Sep-15

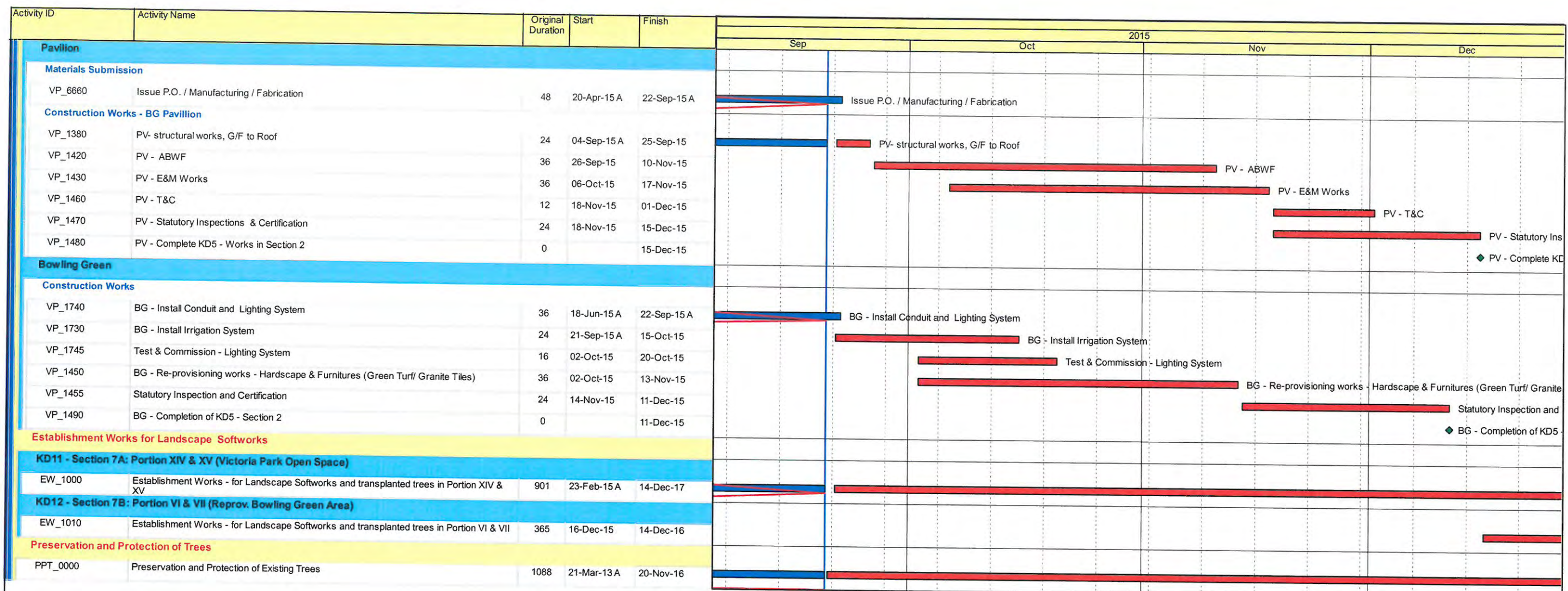
Revision

Updated to 20th Sep 2015

Checked

DML/WC

Approved

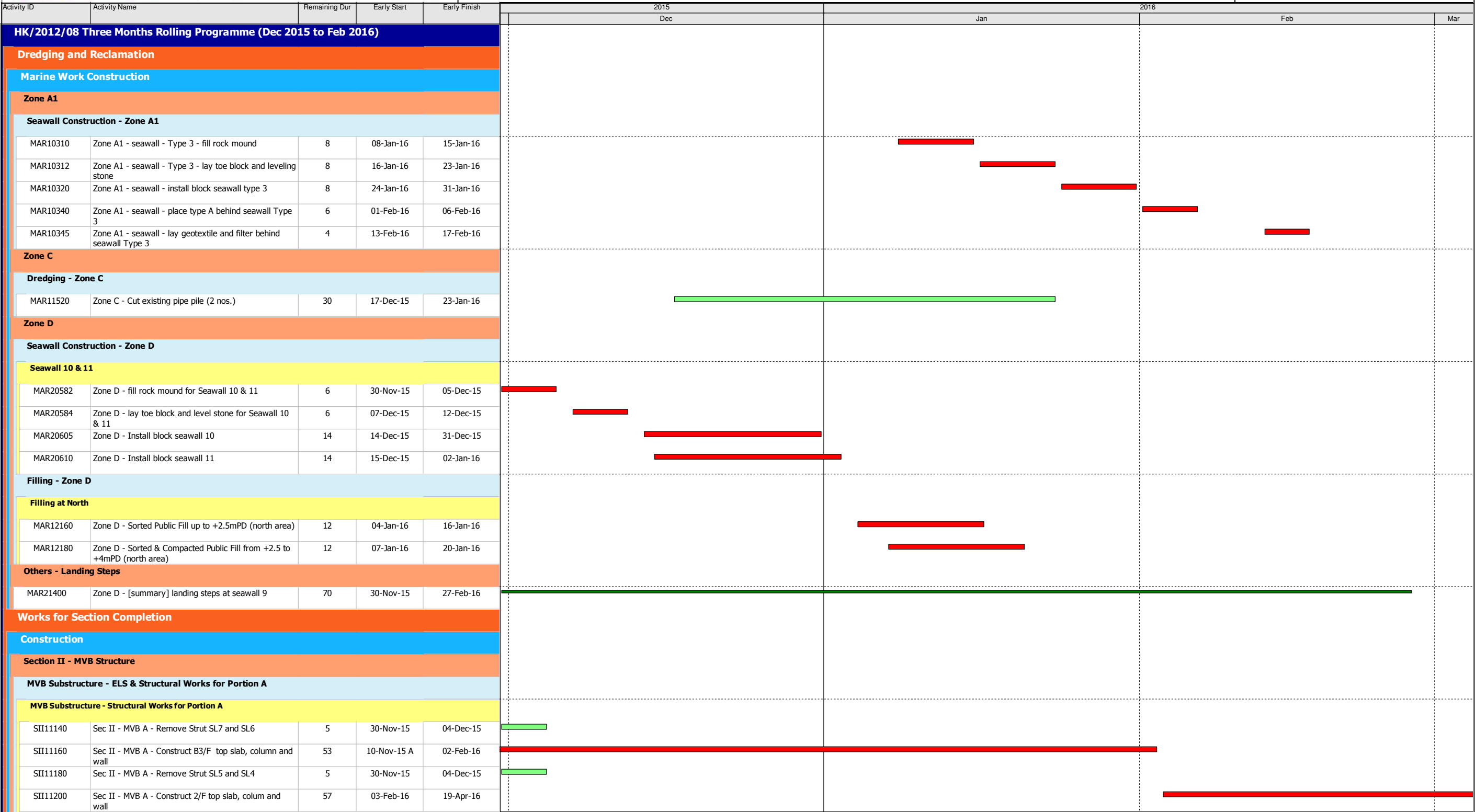




中國建築-利達聯營
CHINA STATE - LEADER JOINT VENTURE

CEDD Contract No. HK/2012/08
Wan Chai Development Phase II
Central - Wan Chai Bypass at Wan Chai West

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Data Date: 30-Nov-15	<div><div>◆</div><div>◆</div>Current Milestone</div> <div><div>■</div><div>■</div>Actual Work</div> <div><div>■</div><div>■</div>Critical Remaining Work</div> <div><div>■</div><div>■</div>Remaining Work</div> <div><div>■</div><div>■</div>Remaining Level of Effort</div>	Works Programme for non-CRIII Zones?Dec 2015 to Feb 2016)	Date	Revision	Checked	Approved
			29-Dec-15			



Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2015		2016		
					Dec	Jan	Feb	Mar	
SII11220	Sec II - MVB A - Remove Strut SL3 and SL2	5	30-Nov-15	04-Dec-15					
SII11280	Sec II - MVB A: Remove Strut SL1	5	30-Nov-15	04-Dec-15					
MVB Substructure - ELS & Structural Works for Portion B									
MVB Substructure - Structural Works for Portion B									
SII11780	Sec II - MVB B: Construct B3/F base slab	6	29-Sep-15 A	05-Dec-15					
SII11800	Sec II - MVB B: Construct B3/F wall, colum & base slab	64	07-Dec-15	27-Feb-16					
SII11820	Sec II - MVB B: remove strut SL8, SL7	5	30-Nov-15	04-Dec-15					
SII11860	Sec II - MVB B: Remove Strut SL6 & SL5	5	30-Nov-15	04-Dec-15					
SII11900	Sec II - MVB B: Remove Strut SL4 & SL3	5	30-Nov-15	04-Dec-15					
SII11940	Sec II - MVB B: Remove Strut SL2	4	30-Nov-15	03-Dec-15					
MVB Substructure - Piling Works									
MVB C - Prebored H Piles									
SII10400	Sec II - MVB C - construct prebored H-piles	37	20-Nov-15 A	14-Jan-16					
MVB Substructure - Diaphragm Wall for Portion C									
MVB C - Pumping Test Preparation/ Pumping Test									
SII10660	Sec II - MVB C - sheetpile wall installation	30	15-Jan-16	24-Feb-16					
SII10680	Sec II - MVB C - Precaution grout / fissure grout	35	17-Feb-16	28-Mar-16					
Section II A - CWB Tunnel & Slip Road Structures and Facilities									
CWB A2(2)									
CWB A2 (2) - Dwall & Piling									
SIIA15320	Sec II A - CWB A2 : construct Temp DWall (1.2m thk)	22	06-Oct-15 A	24-Dec-15					
SIIA15360	Sec II A - CWB A2 : construct pre-bored H-pile	57	16-Nov-15 A	06-Feb-16					
SIIA15400	Sec II A - CWB A2 : Dwall sonic test	40	03-Dec-15	21-Jan-16					
SIIA15420	Sec II A - CWB A2 Loading Test for Prebored H-pile	15	30-Nov-15	16-Dec-15					
CWB A2 (2) - Pumping Test Preparation/ Pumping Test									
CWB A2 - Pumping Test Preparation									
SIIA15440	Sec II A - CWB A2 : Install dewatering/ recharging/ observation well	30	17-Dec-15	23-Jan-16					
CWB A2 & B - Pumping Test									
SIIA15460	Sec II A - CWB A2 : Pumping Test	10	13-Feb-16	24-Feb-16					
CWB A2 (2) - ELS & Tunnel Structure									
CWB A2 - ELS									
SIIA12440	Sec II A - CWB A2 : shoring & excavation	31	13-Feb-16	19-Mar-16					
SIIA12445	Sec II A - CWB A2 : demolition of temp bulk head wall at west end	30	15-Feb-16	19-Mar-16					
SIIA12448	Sec IIA - CWB A2 : demolition of temp bulk head wall at East end	30	15-Feb-16	19-Mar-16					
CWB B (& A2(1))									
CWB B - Dwall & Piling									
SIIA11560	Sec II A - CWB B: Concrete Plug (MTR TWL)	15	15-Jun-15 A	16-Dec-15					
CWB B - ELS & Tunnel Structure									
CWB B - ELS									
SIIA13520	Sec II A - CWB B: Shoring & Excavation	26	22-Oct-15 A	31-Dec-15					



Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2015	2016		
					Dec	Jan	Feb	Mar
SIIA13540	Sec II A - CWB B: Demolish Sheetpile Bulkhead wall at Concrete Plug	35	30-Nov-15	12-Jan-16				
CWB B - Tunnel Structure								
SIIA13560	Sec II A - CWB B: base, wall, OHVD & roof (bay 1)	45	02-Jan-16	29-Feb-16				
SIIA13600	Sec II A - CWB B: base, wall, OHVD & roof (bay 2)	45	20-Jan-16	17-Mar-16				
SIIA13660	Sec II A - CWB B: base, wall, OHVD & roof (bay 3)	45	20-Jan-16	17-Mar-16				
CWB C (W)								
CWB C(W) - Dwall Construction								
SIIA11960	Sec II A - CWB CW: Concrete Plug (MTR TWL)	14	16-Jun-15 A	15-Dec-15				
SIIA11980	Sec II A - CWB CW: D-wall contact grout / fissure grout	21	21-Aug-15 A	23-Dec-15				
SIIA12000	Sec II A - CWB CW: Dwall sonic test / interface core	19	17-Aug-15 A	21-Dec-15				
CWB C(W) - Pumping Test Preparation/ Pumping Test								
SIIA12020	Sec II A - CWB CW: Install dewatering/ recharging/ observation wells	40	30-Nov-15	18-Jan-16				
SIIA12040	Sec II A - CWB CW: Pumping Test	8	19-Jan-16	26-Jan-16				
CWB C(W) - ELS & Tunnel Structure								
CWB C(W) - ELS								
SIIA12080	Sec II A - CWB CW: Shoring & Excavation	26	30-Nov-15	31-Dec-15				
SIIA12120	Sec II A - CWB CW: Demolish Sheetpile Bulkhead at Concrete Plug	26	30-Nov-15	31-Dec-15				
CWB C(W) - Tunnel Structure								
SIIA12140	Sec II A - CWB CW: base, wall, OHVD & roof (bay 1)	45	02-Jan-16	29-Feb-16				
SIIA12180	Sec II A - CWB CW: base, wall, OHVD & roof (bay 2)	45	14-Jan-16	11-Mar-16				
CWB C (E)								
CWB C(E) & Enabling Work - Dwall Construction								
SCL Enabling Work - Dwall Construction								
SIIA13085	Sec II A - CWB CE: Cut existing pipe piles (2 nos.)	30	30-Nov-15	06-Jan-16				
SIIA15520	Sec II - SCL Enabling Works - construct Dwall - Remaining [7 panels]	76	18-Feb-15 A	05-Mar-16				
CWB C(E) - Pumping Test Preparation/ Pumping Test								
SIIA13060	Sec II A - CWB CE: Grout curtain for Dwall	45	25-Jan-16	22-Mar-16				
SIIA13080	Sec II A - CWB CE: Dwall sonic test / interface core	45	25-Jan-16	22-Mar-16				
CWB C(E) - ELS & Tunnel Structure								
CWB C(E) - ELS								
SIIA13160	Sec II A - CWB CE: Shoring & Excavation(Uppn Completion of MVB Structure - B2 Slab)	45	30-Nov-15	23-Jan-16				
SIIA13170	Sec II A - CWB CE: Demolish Bulkhead at East End (adj. to bay 1)	26	22-Dec-15	23-Jan-16				
SIIA13180	Sec II A - CWB CE: Demolish Bulkhead at MVB (adj. to bay 3)	30	17-Dec-15	23-Jan-16				
CWB C(E) - Tunnel Structure								
SIIA13220	Sec II A - CWB CE: base, wall, OHVD & roof (bay 1)	45	25-Jan-16	22-Mar-16				
SIIA13260	Sec II A - CWB CE: base, wall, OHVD & roof (bay 2)	45	17-Feb-16	13-Apr-16				
SIIA13280	Sec II A - CWB CE: base, wall, OHVD & roof (bay 3)	45	17-Feb-16	13-Apr-16				
CWB C - Exhaust Duct								
CWB C - Exhaust Duct Piling								
SIIA12840	Sec II A - Exhaust Duct at Slip Rd3: Prebored H-pile	32	30-Nov-15	08-Jan-16				



Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2015	2016		
					Dec	Jan	Feb	Mar
SIIA12860	Sec II A - Exhaust Duct at Slip Rd3: Loading Test	21	09-Jan-16	02-Feb-16				
CWB C - Exhaust Duct Temp Work & ELS								
SIIA12880	Sec II A - Exhaust Duct at Slip Rd3: Temp. Sheetpiling	30	09-Jan-16	18-Feb-16				
SIIA12900	Sec II A - Exhaust Duct at Slip Rd3: Excavation & Shoring	35	19-Feb-16	30-Mar-16				
CWB D - Slip Road 1								
CWB D - Slip Road 1 - Dwall Construction & Piling								
SIIA12340	Sec II A - CWB SR1: Concrete Plug (MTR TWL)	32	12-Aug-15 A	08-Jan-16				
CWB D - Slip Road 1 - Pumping Test Preparation/ Pumping Test								
SIIA12360	Sec II A - CWB SR1: Grout curtain / contact grout for Dwall	60	30-Nov-15	16-Feb-16				
SIIA12380	Sec II A - CWB SR1: Dwall sonic test / interface core	60	30-Nov-15	16-Feb-16				
SIIA12400	Sec II A - CWB SR1: Install dewatering/ recharging/ observation wells	45	31-Dec-15	27-Feb-16				
CWB D - Slip Road 1 - ELS & Tunnel Structure								
CWB D - Slip Road 1 - ELS								
SIIA12460	Sec II A - CWB SR1: Shoring & Excavation	37	30-Nov-15	14-Jan-16				
CWB D - Slip Road 1 - Tunnel Structure								
SIIA12480	Sec II A - CWB SR1: Demolish Sheetpile Bulkhead at Concrete Plug	45	30-Nov-15	23-Jan-16				
SIIA12500	Sec II A - CWB SR1: base, wall & roof (bay 1)	40	15-Jan-16	07-Mar-16				
SIIA12520	Sec II A - CWB SR1: base, wall & roof (bay 2)	40	27-Jan-16	18-Mar-16				
SIIA12540	Sec II A - CWB SR1: base, wall & roof (bay 3)	40	13-Feb-16	30-Mar-16				
SIIA12560	Sec II A - CWB SR1: base, wall & roof (bay 4)	40	25-Feb-16	15-Apr-16				
CWB D - Slip Road 1 - Trough / Retaining Wall								
CWB D - Slip Road 1 - Trough/Retaining Wall Temp Work & ELS								
SIIA12740	Sec II A - CWB SR1 Trough & RW: Preboring for installing Sheetpile	14	29-Jan-16	19-Feb-16				
SIIA12760	Sec II A - CWB SR1 Trough & RW: install sheetpile	21	20-Feb-16	15-Mar-16				
Section III - Road D11 & Part of Road P2, Area 4, Implement 1st Stage ITA								
Roadwork & Utilities								
General								
SIII10485	Sec III - 1st Stage of Interim Traffic Arrangement - miscellaneous works	16	19-Jan-16	05-Feb-16				
Section III A - Road A2, A4, A5, Area 11; Implement 2nd Stage ITA								
Roadwork & Utilities at A1								
SIIIA10260	Sec III A - roadwork and utilities (Zone A1) - Backfill to pavement founding level	70	18-Feb-16	16-May-16				
Section VI A - Box Culvert La, L1 & FRP-L Construction								
Sec VI C - Box Culvert La bay 4 (North)								
CUL11660	Sec VI C - Culvert L - bay 4 - backfill	30	30-Nov-15	06-Jan-16				
Box Culvert L1 & FRP-L Construction (Bay 5 - Bay 7)								
Box Culvert L1 & FRP-L - Bay 5 to 7 Structure								
Box Culvert L1 & FRP-L - Precast Unit Fabrication (Box Structure)								
CUL10872	Sec VI C - Culvert L - bay 4b - Construct precast culvert units with Bulkhead	11	29-Jun-15 A	11-Dec-15				
CUL10873	Sec VI C - Culvert L - bay 4b, 5-7 - dismantle formwork and curing for precast culvert units	12	12-Dec-15	28-Dec-15				
Box Culvert L1 & FRP-L - Bay 5 & 6 Backfill & Others								



Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	2015		2016	
					Dec	Jan	Feb	Mar
CUL10878	Sec VI C - Culvert L - bay 5, 6 - backfill to +4.0mPD	30	22-Oct-15 A	06-Jan-16				
CUL10879	Sec VI C - Culvert L - bay 5, 6 - trim to formation level and handover Area 6	10	07-Jan-16	18-Jan-16				
Box Culvert L1 & FRP-L - Bay 7 Backfill & Others								
CUL11785	Sec VI C - Culvert L - bay 7 - Diversion of flow from temp channel into Cul L	5	15-Feb-16*	19-Feb-16				
CUL11800	Sec VI C - Culvert L - bay 7 - backfill to +4.0mPD	35	20-Feb-16	31-Mar-16				
Box Culvert L1 & FRP-L - Bay 12 to 13								
Box Culvert L1 & FRP-L - Bay 12 to 13 Piling								
CUL12356	Culvert L - bay 13 - construct pre-bored H-pile (PC10 & PC11)	30	01-Dec-15*	07-Jan-16				
Box Culvert L1 & FRP-L - Bay 12 to 13 Temp Work & ELS								
CUL12480	Culvert L - bay 12 & 13 - pile head treatment and construct pile cap PC9, PC10 & PC11	30	08-Jan-16	17-Feb-16				
Box Culvert L1 & FRP-L - Bay 12 to 13 Structure								
CUL12545	Culvert L - bay 12 & 13 - Construct Precast Units (off site)	45	08-Dec-15*	01-Feb-16				
CUL12548	Culvert L - bay 12 & 13 - Deliver and Install Precast Units	7	18-Feb-16	25-Feb-16				
Section VI C - Area 3, 6, 8A & 8C								
Area 8A & 8C - Seawall Modification								
Modification of Seawall								
Modification of Seawall - Zone 1 & 2								
PRS10060	Sec VIC - Working Platform & P7 to P17, P18, P18A,P23,P24, P32 -P34 & P32A-P34A (DTH)	10	30-Nov-15	10-Dec-15				
PRS10080	Sec VIC - Working Platform & P59, P59A, P60, P60A, P61, P61A, P62, P62A , P63-P66 (DTH)	39	21-Dec-15	06-Feb-16				
PRS10085	Sec VIC - Curtain Grout (DTH)	49	11-Dec-15	15-Feb-16				
Modification of Seawall - Zone 4								
PRS10160	Sec VIC - Working Platform (Zone 4)	8	30-Nov-15	08-Dec-15				
PRS10180	Sec VIC - Pipe Pile P63 to P68 & P64A (Zone 4)	10	09-Dec-15	19-Dec-15				
Area 8A - MTR Pump Room Clearance & Handover								
PRS-1060	Sec VI C - Clearance of pump house for Handover	5	04-Feb-16	15-Feb-16				
Area 6 - Box Culvert bay 5-6								
SVIC10020	Sec VI C - backfill to formation level at Area 6	30	30-Nov-15	06-Jan-16				
SVIC10040	Sec VI C - U-Channel and ug utilities at Area 6	18	07-Jan-16	27-Jan-16				
Area 3 - Box Culvert bay 4 and Roadwork								
SVIC10240	Sec VI C - reinstate and compact sub-base above Culvert L Bay 4 in Area 3	7	07-Jan-16	14-Jan-16				
SVIC10260	Sec VI C - reinstate road kerb in Area 3	6	07-Jan-16	13-Jan-16				
SVIC10280	Sec VI C - reinstate flexible pavement in Area 3	6	14-Jan-16	20-Jan-16				
SVIC10300	Sec VI C - reinstate footpath in Area 3	5	21-Jan-16	26-Jan-16				
SVIC10320	Sec VI C - reinstate traffic sign and road marking in Area 3	1	26-Jan-16	26-Jan-16				
Section VI D - Area 8B & 10								
WDII Box 1 Construction								
WDII Box 1 Submission and Approval / Material Procurement								
PCU60410	Sec VI D - WD II Box 1 - Prepare Subcontract for Box 1 structure	29	02-Jan-16*	04-Feb-16				
WDII Box 1 Existing Pile Head and Dry Dock								
WD-C3030	Sec VI D - form dry dock / waterproofing for Box 1 structure	26	15-Oct-15 A	31-Dec-15				



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					Dec	Jan	Feb	Mar
WD-C3032	Sec VI D - Construct Box 1 (bottom slab and temp bulk head wall)	54	06-Feb-16	19-Apr-16				
WDII Box I Existing Pile Head Treatment								
PRS10260	Sec VIC - Pile Head at Pile A3	12	30-Nov-15	12-Dec-15				
PRS10280	Sec VIC - Pile Head at Pile A4	13	14-Dec-15	30-Dec-15				
PRS10300	Sec VIC - Pile Head at Pile B3	13	31-Dec-15	15-Jan-16				
PRS10320	Sec VIC - Pile Head at Pile B4	12	16-Jan-16	29-Jan-16				
WDII Box 1 ELS								
WD-C3995	Sec VIC - Removal of Platform of Bored Pile	2	13-Feb-16	15-Feb-16				
WD-C3998	Sec VIC - Install Column, C1, Struct S1 & RS1	11	16-Feb-16	27-Feb-16				
Section VII - Remainder Works								
Landing Steps Construction								
Landing Steps BSW9								
SVII11100	Sec VII - Landing steps (BSW9) - construct mass concrete coping	24	30-Nov-15	29-Dec-15				
SVII11120	Sec VII - Landing steps (BSW9) - curing and dismantle formwork	14	30-Dec-15	15-Jan-16				
SVII11140	Sec VII - Landing steps (BSW9) - install vertical fender / step fender	9	16-Jan-16	26-Jan-16				
SVII11160	Sec VII - Landing steps (BSW9) - install s.s. handrail / tactile / sign board / bollard	23	27-Jan-16	27-Feb-16				
Demolition of Interim Landing Steps and Construct Permanent Seawall at CRIII								
SVII10220	Sec VII - remove interim landing steps - protect open cut slope	2	30-Nov-15	01-Dec-15				
SVII10240	Sec VII - remove interim landing steps - remove old seawall wall blocks	6	02-Dec-15	08-Dec-15				
SVII10260	Sec VII - seawall - remove old rubble mound and dredging	6	09-Dec-15	15-Dec-15				
SVII10280	Sec VII - seawall - final hydrographic survey	7	16-Dec-15	23-Dec-15				
SVII10300	Sec VII - seawall - [summary] fill rubble mound	13	02-Oct-15 A	14-Dec-15				
SVII10320	Sec VII - seawall - [summary] place caisson seawall type 1B(4), 2D and 1	27	02-Nov-15 A	02-Jan-16				
SVII10380	Sec VII - seawall - backfill behind seawall to pavement formation	26	04-Jan-16	02-Feb-16				
Promenade Seawall Parapet Construction								
SVII10400	Sec VII - construct block seawall mass concrete coping & backfill to pavement formation	120	30-Nov-15*	30-Apr-16				
Section VIII - Landscape Softworks								
Soft Landscaping Works								
SVIII10040	Sec VIII - Trees Planting	180	18-Dec-15	02-Aug-16				
Section X - Protection & Preservation of Trees								
Soft Landscaping Works								
SX10020	Sec X - Protection & Preservation of Trees	600	31-Jan-13 A	21-Jul-17				
VO : Construction of Box 4A & 4B								
1005	Summary of Variation Order: Box 4A & 4B	130	15-Jan-16	23-May-16				
Box 4A								
A1010	Summary of concrete fill with 300 dia. carrier drain, 5 bays (ave. t = 1.875m x approx. 50m)	15	15-Jan-16	01-Feb-16				
A1011	Concrete fill with 300 dia. carrier drain: bay 1	3	15-Jan-16	18-Jan-16				
A1012	Concrete fill with 300 dia. carrier drain: bay 2	3	19-Jan-16	21-Jan-16				
A1013	Concrete fill with 300 dia. carrier drain: bay 3	3	22-Jan-16	25-Jan-16				
A1014	Concrete fill with 300 dia. carrier drain: bay 4	3	26-Jan-16	28-Jan-16				



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					Dec	Jan	Feb	Mar
A1015	Concrete fill with 300 dia. carrier drain: bay 5	3	29-Jan-16	01-Feb-16				
A1020	Summary of falseworks & fomworks for internal suspended slab	46	19-Jan-16	04-Mar-16				
A1021	Falseworks & fomworks for internal suspended slab: bay 1	7	19-Jan-16	26-Jan-16				
A1022	Falseworks & fomworks for internal suspended slab: bay 2	7	27-Jan-16	03-Feb-16				
A1023	Falseworks & fomworks for internal suspended slab: bay 3	7	04-Feb-16	17-Feb-16				
A1024	Falseworks & fomworks for internal suspended slab: bay 4	7	18-Feb-16	25-Feb-16				
A1025	Falseworks & fomworks for internal suspended slab: bay 5	7	26-Feb-16	04-Mar-16				
A1030	Summary of internal suspended slab, 5 bays (t = 200mm x approx. 50m)	45	27-Jan-16	11-Mar-16				
A1031	Internal suspended slab - bay 1: rebars & casting	6	27-Jan-16	02-Feb-16				
A1032	Internal suspended slab - bay 2: rebars & casting	6	04-Feb-16	16-Feb-16				
A1033	Internal suspended slab - bay 3: rebars & casting	6	18-Feb-16	24-Feb-16				
A1034	Internal suspended slab - bay 4: rebars & casting	6	26-Feb-16	03-Mar-16				
A1040	Summary of internal wall, 5 bays (t = 200mm x approx. 50m)	45	03-Feb-16	18-Mar-16				
A1041	Internal wall - bay 1: rebars, formworks & casting	6	03-Feb-16	15-Feb-16				
A1042	Internal wall - bay 2: rebars, formworks & casting	6	17-Feb-16	23-Feb-16				
A1043	Internal wall - bay 3: rebars, formworks & casting	6	25-Feb-16	02-Mar-16				